U. S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

CLASSIFICATION ORDER 1866

SEPTEMBER 4, 2007

PROJECT C-7029

The following classification changes will be effected by this order:

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<td>Abolished:</td>
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<td>Established:</td>
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<td>440.01-440.07, 440.071, 440.072, 440.08, 440.09, 440.11-440.16</td>
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No other classes were impacted by this order.

This order includes the following:

A. CLASSIFICATION MANUAL CHANGES

B. LISTING OF PRINCIPAL SOURCE OF ESTABLISHED AND DISPOSITION OF ABOLISHED SUBCLASSES

C. CHANGES TO THE USPC-TO-IPC CONCORDANCE

D. DEFINITION CHANGES AND NEW OR ADDITIONAL DEFINITIONS
CLASSIFICATION ORDER 1866

SEPTEMBER 4, 2007

Project No. C-7029

Project Leader: Terrence M. Mackey
Project Classifier: Ed Ward
Editor: James E. Doyle, Jr.
Editorial Assistant: Louise Bogans
This Class 525 is considered to be an integral part of Class 520 (see the Class 520 schedule for the position of this Class in schedule hierarchy). This Class retains all pertinent definitions and class lines of Class 520.

**SYNTHETIC RESINS (Class 520, Subclass 1)**

7. Ethylenically unsaturated reactant admixed with a preformed reaction product derived from: (a) at least one polycarboxylic acid, ester, or anhydride; (b) at least one polyhydroxy compound; and (c) at least one fatty acid glycerol ester, or a fatty acid or salt derived from a naturally occurring glyceride, tall oil, or a tall oil fatty acid.

7.1. Mixed in the presence of a specified material.

7.2. Mixed with silicon-containing reactant or polymer derived therefrom.

7.3. Mixed with aldehyde or derivative as reactant or polymer derived therefrom.

7.4. Mixed with previously formed solid polymer or SPFI.

8. Ethylenically unsaturated reactant admixed with a preformed reaction product derived from: (a) at least one polycarboxylic acid, ester, or anhydride; (b) at least one polyhydroxy compound; and (c) at least one natural resin, protein, or biologically active polypeptide, or carbohydrate or derivative.

10. Ethylenically unsaturated reactant admixed with either (A) a polymer derived from a saturated di- or higher ester of a polycarboxylic acid as sole reactant, or (B) reaction product of only polycarboxylic acids or anhydrides with only compounds having at least two hydroxy groups at least one of which is saturated and wherein the reaction product formed is not aftertreated prior to admixture with the unsaturated reactant except with a polycarboxylic acid, polycarboxylic acid anhydride, or a poliol, and wherein no solid polymer derived from ethylenic reactants only is mixed therewith.

11. Mixed in presence of specified material or a polymerizable composition contains a specified material.

12. Specified material contains boron or silicon atom.

13. Specified material contains metal atom other than from group IA metal atom (Li, Na, K, Rb, Cs, Fr).

14. Material contains Group IB metal atom (Cu, Ag, Au).

15. Material contains Group IIA metal atom (Zn, Cd, Hg) or IIB metal atom (Al, Ga, In, T1).


17. Material contains Group VIII metal atom (Fe, Co, Ni, Ru, Rh, Pd, Os, Ir, Pt).

18. Material contains Group IVA metal atom (Ge, Sn, Pb).

19. Material contains Group IVA metal atom (Se, S, Te).

20. Specified material contains phosphorus atom.

21. Specified material contains ketone group.

22. Specified material contains an aldehyde or derivative thereof.

23. Specified material contains sulfur atom.

24. Sulfur is part of heterocyclic ring.

25. Specified material contains nitrogen atom.

26. Nitrogen is part of heterocyclic ring.

27. Specified material contains a peroxy group, i.e., -O-O-.

28. Mixed with -N=C-X reactant or polymer derived therefrom (X is chalcogen).

29. Mixed with silicon-containing reactant or polymer derived therefrom.

30. Mixed with a solid polymer or specified intermediate condensation product derived from at least one amine-, N-C(=X) or N-S(=O)-containing reactant and at least one aldehyde or aldehyde-type reactant (X is chalcogen).

31. Mixed with an 1,2-epoxy compound containing more than one 1,2-epoxy group per mole or polymer derived therefrom.

32. Mixed with a phenolic reactant and an aldehyde or aldehyde-type reactant or reaction product thereof.

32.1. Polymer derived from polycarboxylic acid and polyhydroxyl compound is derived from at least one polycarboxylic acid reactant which is a dimer or trimer of an ethylenically unsaturated aliphatic monocarboxylic acid having at least ten carbon atoms; or adducts of said unsaturated monocarboxylic acid with an alpha, beta ethylenically unsaturated monocarboxylic acid or derivative.

32.2. Ethylenic reactant or polymer derived from polycarboxylic acid or anhydride and polyl is derived from a carbohydrate or derivative.
SYNTHETIC RESINS (Class 520, Subclass 1)

.ETHYLENICALLY UNSATURATED REACTANT
AUXMIXED WITH EITHER (A) A POLYMER
DERIVED FROM A SATURATED DI- OR
HIGHER ESTER OF A POLYCARBOXYLIC
ACID AS SOLE REACTANT, OR (B)
REACTION PRODUCT OF ONLY
POLYCARBOXYLIC ACIDS OR ANHYDRIDES
WITH ONLY COMPOUNDS HAVING AT LEAST
TWO HYDROXY GROUPS AT LEAST ONE OF
WHICH IS SATURATED AND WHEREIN THE
REACTION PRODUCT FORMED IS NOT
AFTERTREATED PRIOR TO ADJUVIXTURE WITH
THE UNSATURATED REACTANT EXCEPT WITH
A POLYCARBOXYLIC ACID;
POLYCARBOXYLIC ACID ANHYDRIDE, OR A
POLYOL, AND WHEREIN NO SOLID POLYMER
DERIVED FROM ETHYLENIC REACTANTS
ONLY IS MIXED THEREWITH

33 ...Polymer derived from polycarboxylic
acid and polyhydroxy compound is
derived from at least one
carboxylic acid containing at
least three carboxyl groups or more
than one anhydride group

34 ...Polymer derived from polycarboxylic
reactant and polycarboxylic acid is
derived from at least one reactant
containing at least three hydroxyl
groups

35 ...Polymer derived from polycarboxylic
acid or anhydride and polyhydroxy
compound is derived from at least
two polycarboxylic acid reactants
or two polycarboxylic acid
anhydrides or mixture thereof

36 ...At least one of said polycarboxylic
acid reactants or anhydrides
contains ethylenic unsaturation

37 ...Polymer mixed with unsaturated
reactant containing phosphorus
atom

38 ...Polymer mixed with unsaturated
reactant containing nitrogen atom

39 ...Polymer mixed with unsaturated
reactant containing carboxylic
acid, ester, salt or anhydride
group

40 ...Polymer mixed with unsaturated
reactant containing aryl ring

41 ...Polymer derived from polycarboxylic
acid or anhydride and polyhydroxy
compound is derived from at least
two polycarboxylic acid compounds

42 ...Polymer derived from polycarboxylic
acid or anhydride and polyhydroxy
compound is derived from
polyhydroxy compound containing
ether linkage

43 ...Polymer derived from polycarboxylic
acid or anhydride and polyhydroxy
compound wherein at least one of
the reactants contains ethylenic
unsaturation

44 ...Polymer mixed with unsaturated
reactant containing two or more
unsaturated groups

45 ...Polymer derived from acrylonitrile

...Polymer mixed with unsaturated
reactant containing nitrogen atom

...Unsaturated reactant contains
nitrogen heterocycle

...Polymer mixed with unsaturated
carboxylic acid, ester, salt, or
anhydride

...Polymer mixed with unsaturated
aromatic compound

...Mixing of two or more solid polymers;
mixing of solid polymer or SCP with
SCP or SPFI; mixing of SCP with an
ethylenic agent; mixing of solid
polymer with a chemical treating or
ethylenic agent; or processes of
forming or reacting; or the
resultant product of any of the
above operations

...Effecting a change in a process in
response to a measurement or test

...Utilizing a tubular or loop reactor

...Utilizing an apparatus with two or
more physically distinct zones

...Removing and recycling material from
one zone to another

...Containing chemically combined protein
or biologically active polypeptide

...Solid polymer treated by stepwise
reaction with naturally occurring
alpha or beta amino acid or a
material which contains a residue
of said amino acid, e.g., a
functionally protected amino acid,
etc.

...Previously formed solid polymer
chemicallv reacted with
carbohydrate or derivative

...Cellulose or derivative as chemical
reactant

...Previously formed solid polymer is
derived from N-C-X reactant or
contains N=C-X group wherein X is
chalcogen

...Previously formed solid polymer is
derived from ethylenically
unsaturated reactants only

...Starch, starch flour or meal, or
derivative as chemical reactant

...Previously formed solid polymer
derived from ethylenic reactants
only

...Previously formed solid polymer
containing chemically combined
carbohydrate admixed with a
chemical treating or ethylenic
agent, SPFI, SCP, or solid polymer

...Carbohydrate containing polymer is
derived from starch, or starch
containing flour or meal

...Carbohydrate containing polymer
derived from acrylonitrile
SYNTHETIC RESINS (Class 520, Subclass 1)  
.\MIXING OF TWO OR MORE SOLID POLYMERS;  
MIXING OF SOLID POLYMERS OR SICP WITH  
SICP OR SPFI; MIXING OF SICP WITH AN  
ETHYLENIC AGENT; MIXING OF SOLID  
POLYMER WITH A CHEMICAL TREATING OR  
ETHYLENIC AGENT; OR PROCESSES OF  
FORMING OR REACTING; OR THE  
RESULTANT PRODUCT OF ANY OF THE  
ABOVE OPERATIONS  

54.4  \.Containing chemically combined natural  
resin or derivative thereof other  
than tall oil  

54.41 ...Shellac  
54.42 ...Previously formed solid polymer  
chemically reacted with natural  
resin or derivative  
54.44 ....At least one previously formed solid  
polymer derived from ethylenic  
monomers only  
54.45 ...Previously formed solid polymer  
containing chemically combined  
natural resin or derivative  
admixed with an ethylenic agent or  
a chemical treating agent other  
than SICP or SPFI  
54.5 ...Chemically combined coal, bituminous  
material, extract, or derivative  
thereof; oil shale; or fatty still  
residue  
55 ...At least one solid polymer derived  
from ethylenic reactants only  
56 ...Polyvinyl alcohol  
57 ...With solid polymer derived from  
ethylenic reactants only  
58 ....With SICP, SPFI, or polymer thereof  
59 ....With ethylenic reactant  
60 ....Interpolymers  
61 ...Chemical modification utilizing a  
chemical treating agent  
62 ....Processes only of preparing  
polyvinyl alcohol  
63 ...Mixing of solid graft or graft-type  
copolymer with other solid polymer  
wherein one of said solid polymers  
is not derived from ethylenic  
reactants only; mixing of said  
polymer mixture with a chemical  
treating agent; or mixing of graft  
or graft-type copolymer with a  
SICP or SPFI; or processes of  
forming or reacting; or the  
resultant product of any of the  
above operations  
64 ....Solid graft or graft-type copolymer  
derived from ethylenic reactants  
only  
65 ......With saturated 1,2-epoxy reactant  
containing more than one  
1,2-epoxy group per mole or  
polymer derived therefrom; or  
with solid copolymer derived  
from at least one unsaturated  
1,2-epoxy reactant wherein the  
epoxy reactant contains more  
than one 1,2-epoxy group per  
mole and at least one saturated  
reactant  

# Title Change  
* Newly Established Subclass  
@ Indent Change  
& Position Change
SYNTHETIC RESINS (Class 520, Subclass 1)

1. Mixing of two or more solid polymers;
   Mixing of solid polymer or SICP with
   SICP or SPFI; Mixing of SICP with an
   ethylenic agent; Mixing of solid
   polymer with a chemical treating or
   ethylenic agent; or Processes of
   forming or reacting; or the
   resultant product of any of the
   above operations

2. At least one solid polymer derived
   from ethylenic reactants only

3. Mixing of solid graft or graft-type
   copolymer derived from ethylenic
   reactants only with other solid
   polymer derived from ethylenic
   reactants only; or treating said
   mixture with chemical treating
   agent; or Processes of forming or
   reacting; or the resultant product
   of any of the above operations

4. Mixture contains solid polymer
   derived from reactant containing
   oxygen heterocycle

5. Mixture contains solid polymer
   derived from reactant containing
   a fused- or bridged-ring system
   or from cycloaliphatic reactant

6. Mixture contains solid polymer
   derived from chlorine-containing
   reactant other than from
   vinylidene chloride

7. Mixture contains solid polymer
   derived from reactant containing
   nitrogen other than from
   (meth)acrylonitrile

8. Mixture contains solid polymer
   derived from reactant containing
   carboxylic acid group

9. Mixture contains solid polymer
   derived from reactant containing
   ether or hydroxyl group

10. Mixture contains solid polymer
    derived from reactant containing
    carboxylic acid ester group

11. Reactant contains at least two
    ester groups.

12. Ester derived from a polyol

13. Substrate polymer derived from
    hydrocarbon containing plural
    unsaturation

14. Polymer substrate derived from
    hydrocarbon reactants only

15. Polymer substrate derived from an
    unsaturated carboxylic acid
    ester

16. Mixture contains solid polymer
    derived from nonaromatic reactant
    containing plural ethylenically
    unsaturated groups

17. Solid polymer other than graft or
    graft-type derived from
    nonaromatic plural ethylenically
    unsaturated reactant

18. Mixing of solid block or block-type
    copolymer with other solid
    polymer; mixing of said polymer
    mixture with a chemical treating
    agent; mixing of a block or

---

Block-type copolymer with STCF or
with SPFI; or Processes of forming or
reacting; or the resultant
product of any of the above
operations

---

Mixture contains two or more solid
block or block-type copolymers

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Mixture contains solid block
copolymer wherein at least one
block is derived from ethylenic
reactants only and at least one
block is derived from at least
one saturated reactant

---

Block derived from at least one
saturated reactant containing a
heterocycle

---

Mixture contains solid polymer
derived from at least one
saturated reactant, SICP, or SPFI

---

Solid block or block-type copolymer
derived from saturated reactants
only

---

Solid polymer derived from a
lactam; from an amino carboxylic
acid or derivative; from a
polyamine and a polycarboxylic
acid or derivative

---

Solid polymer derived from
-N=C-X reactant, wherein X is chalcogen

---

Solid polymer derived solely from a
phenolic reactant or derivative
thereof, wherein no reactant
contains a plurality of methyol
groups

---

Solid polymer derived form
-0-C(=O)-0- or hal-C(=O)-
containing reactant

---

Solid polymer derived from
polyhydroxy reactant and
polycarboxylic acid or
derivative

---

Solid polymer derived from
silicon-containing reactant

---

Solid polymer derived from
saturated 1,2-epoxy reactant
containing more than one
1,2-epoxy group per molecule

---

Solid polymer derived from
sulfur-containing reactant

---

Solid polymer derived from
saturated aldehyde or aldehyde
derivative material

---

Solid polymer derived from
heterocyclic material

---

Solid polymer derived from
saturated ketone reactant

---

Mixture contains solid polymer
derived from reactant containing
chalcogen

---

Newly Established Subclass
SYNTHETIC RESINS (Class 520, Subclass 1)

MIXING OF TWO OR MORE SOLID POLYMERS;
MIXING OF SOLID POLYMER WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

At least one solid polymer derived from ethylenic reactants only

Mixing of solid block or block-type copolymer with other solid polymer; mixing of said polymer mixture with a chemical treating agent; mixing of a block or block-type copolymer with SICP or with SPFI; or processes of forming or reacting; or the resultant product of any of the above operations

Mixture contains solid polymer derived from reactant containing chalcogen

Solid block or block-type copolymer derived from reactant containing carboxylic acid ester group

Mixture contains solid block or block-type copolymer derived from ethylenically unsaturated hydrocarbon reactants only at least one of which contains at least four carbon atoms

With solid polymer derived from reactant containing an atom other than C, H or chalcogen

Mixture contains solid polymer derived from reactant containing a fused- or bridged-ring system

Solid block or block-type copolymer derived from reactant containing plural unsaturation

With solid polymer derived from reactant containing plural unsaturation

With saturated Si-C or Si-H reactant or polymer thereof; or with solid copolymer derived from at least one Si-C or Si-H reactant wherein at least one of the reactants forming the solid copolymer is saturated; or with SPFI wherein at least one of the necessary ingredients contains a Si-C or Si-H bond or with a reaction product thereof; or with a STCP containing a Si-H or Si-C bond

Contacting with nonsilicon-containing SICP, nonsilicon-containing SPFI, or polymer thereof; or with two or more solid polymers

Si-H or Si-C reactant contains an atom other than C, H, O, or Si bonded to a carbon atom

Solid polymer from ethylenic reactants only is derived from heterocyclic reactant

...Solid polymer from ethylenic reactants only is derived from reactant containing halogen atom

...Solid polymer from ethylenic reactants only is derived from plural unsaturated hydrocarbon

...Solid polymer from ethylenic reactants only is derived from unsaturated hydrocarbon

...With saturated 1,2-epoxy reactant containing more than one 1,2-epoxy group per mole or polymer derived therefrom; or with solid copolymer derived from at least one saturated reactant and at least one unsaturated 1,2-epoxy reactant wherein the epoxy reactant contains more than one 1,2-epoxy group per mole

...Contacting two or more solid polymers derived from ethylenic reactants only with a poly 1,2-epoxy-containing reactant; or contacting a solid polymer derived from ethylenic reactants only with a poly 1,2-epoxy-containing reactant and subsequently contacting with an additional polymer derived from ethylenic reactants only

...With phenolic reactant or polymer thereof and is free of 1,2-epoxy groups

...With reactant which is an aldehyde, aldehyde derivative, or polymer thereof, and which is free of an 1,2-epoxy group (included herein are alkylated methylol groups)

...With reactant which is free of an 1,2-epoxy group and which contains a \(-N=C=X\) group or polymer thereof (X is chalcogen); or with a polyol and a polycarboxylic acid or reaction product thereof which is free of an 1,2 epoxy group

...With a reactant which is a fatty acid glycerol ester, a fatty acid or salt derived from a naturally occurring glyceride, tall oil, or a fatty acid derived from tall oil

...Contacting polymer from ethylenic reactants only with ethylenic reactant wherein said contacting is either concurrent with or subsequent to the contacting with the saturated poly 1,2-epoxy reactant

...With nitrogen-containing reactant, or wherein the poly 1,2-epoxy reactant contains a nitrogen atom

...With additional heterocyclic reactant free of 1,2-epoxy group

Title Change

* Newly Established Subclass
SYNTHETIC RESINS (Class 520, Subclass 1)
MIXING OF TWO OR MORE SOLID POLYMERS;
MIXING OF SOLID POLYMER OR SICP WITH
SICP OR SPFI; MIXING OF SICP WITH AN
ETHYLENIC AGENT; OR PROCESSES OF
FORMING OR REACTING; OR THE
RESULTANT PRODUCT OF ANY OF THE
ABOVE OPERATIONS

At least one solid polymer derived
from ethylenic reactants only

...With saturated 1,2-epoxy reactant
containing more than one 1,2-epoxy
group per mole or polymer derived
therefrom, or with solid copolymer
derived from at least one
saturated reactant and at least
one unsaturated 1,2-epoxy reactant
wherein the epoxy reactant
contains more than one 1,2-epoxy
group per mole

Poly 1,2-epoxy reactant contains an
atom other than C, H, or O

Polymer derived from ethylenic
reactants only derived from
heterocyclic reactant

Polymer derived from ethylenic
reactants only derived from
reactant containing an alcohol or
ether group (includes phenols)

Polymer derived from ethylenic
reactants only derived from
reactant containing a -COOH group

Polymer derived from ethylenic
reactants only derived from
nonaromatic monolefin

Polymer derived from ethylenic
reactants only derived from
reactant containing a halogen
atom

Polymer derived from ethylenic
reactants only derived from
unsaturated hydrocarbon

With saturated -N=C=X (X is
chalcogen) reactant or polymer
thereof; or with solid copolymer
derived from at least one
-N=C=X reactant wherein at least one of
the reactants forming the solid
copolymer is saturated; or with
SPFI wherein at least one of the
necessary ingredients contains a
-N=C=X group or with a reaction
product thereof; or with SICP
containing a -N=C=X group

Blocked isocyanate reactant

Contacting two or more solid
polymers derived from ethylenic
reactants only with a -N=C=X
reactant or polymer thereof; or
contacting a polymer derived from
an ethylenic reactant only with a
-N=C=X reactant or polymer
thereof and subsequently adding

Title Change
Newly Established Subclass

© Indent Change
& Position Change
SYNTHETIC RESINS (Class 520, Subclass 1)

145 Solid polymer derived from ethylenic reactants only is derived from an acyclic hydrocarbon.

146 With a -O-C(=O)-O-, -O-C(=O)-hal or hal-C(=O)-hal group-containing reactant or polymer thereof.

147 Two or more diverse phenolic reactants; or phenolic reactant contains an atom other than C, H, or O.

148 Solid polymer derived from ethylenic reactants only is derived from a reactant containing a carboxylic acid or derivative thereof.

149 Contains ethylenic reactant other than from a solid polymer derived from ethylenic reactants only, e.g., reaction product from a phenol and unsaturated hydrocarbon, etc.

150 Phenolic reactant contains a phosphorus or sulfur atom or with phosphorus- or sulfur-containing reactant.

151 Solid polymer derived from ethylenic reactants only is derived from a reactant containing at least one halogen atom.

152 Solid polymer derived from ethylenic reactants only is derived from a reactant containing a polycyclic ring system or two or more ethylenic groups.

153 With saturated ketone reactant or polymer thereof; or with solid copolymer derived from at least one ketone reactant wherein at least one of the reactants forming the solid copolymer is saturated; or with SPFI wherein at least one of the necessary ingredients is a ketone or with a reaction product thereof; or with SICP containing a ketone group.

154 With saturated aldehyde or aldehyde derivative (including methyloxy ethers or condensates) reactant or solid polymer thereof; or with solid copolymer derived from at least one aldehyde or aldehyde derivative reactant wherein at least one of the reactants forming the solid copolymer is saturated; or with SPFI wherein at least one of the necessary ingredients is an aldehyde or aldehyde derivative reactant or with a reaction product thereof; or with SICP containing an aldehyde or aldehyde derivative.

...At least one solid polymer derived from ethylenic reactants only...

...With saturated phenolic reactant or polymer thereof; or with solid copolymer derived from at least one phenolic reactant wherein at least one of the reactants forming the solid copolymer is saturated; or with SPFI wherein at least one of the necessary ingredients is a phenolic reactant or with a reaction product thereof; or with a SICP containing a phenolic group Si-H or Si-C bond.

...Contacting with aldehyde or aldehyde-type reactant or polymer therefrom...

...Phenolic reactant prior to contact with aldehyde or aldehyde-type reactant contains an atom other than C, H, or O.

...Phenolic reactant prior to contact with aldehyde or aldehyde-type reactant contains at least two aryl rings each of which contains phenolic substituents.

...With nonethylenic, nonaldehyde, or nonaldehyde-type reactant containing an atom other than C, H, or O.

...Solid polymer derived from ethylenic reactants only is derived from reactant containing at least two ethylenic groups.

...Phenolic reactant has at least two nuclear carbon atoms directly bonded to extracyclic carbon atoms which extracyclic carbon atoms are not part of a methylol group.

...Solid polymer from ethylenic reactants only is derived from both a reactant containing two ethylenic groups and an acyclic monoethylenic hydrocarbon.

...Solid polymer derived from ethylenic reactants only is derived from a nitrogen-containing reactant.

...Solid polymer derived from ethylenic reactants only is derived from a reactant containing a carboxylic acid or derivative thereof.

...Solid polymer derived from ethylenic reactants only is derived from a reactant containing at least one halogen atom.
SYNTHETIC RESINS (Class 520, Subclass 1)

- Mixing of two or more solid polymers;
- Mixing of solid polymer or SICP with SICP or SPFI; Mixing of SICP with an ethylenic agent; Mixing of solid polymer with a chemical treating or ethylenic agent; or Processes of forming or reacting; or the resultant product of any of the above operations.

**At least one solid polymer derived from ethylenic reactants only**

...With saturated aldehyde or aldehyde derivative (including methylol ethers or condensates) reactant or solid polymer thereof; or with solid copolymer derived from at least one aldehyde or aldehyde derivative reactant wherein at least one of the reactants forming the solid copolymer is saturated; or with SPFI wherein at least one of the necessary ingredients is an aldehyde or aldehyde derivative reactant or with a reaction product thereof; or with SICP containing an aldehyde or aldehyde derivative.

155 Contacting two or more solid polymers derived from ethylenic reactants only with an aldehyde or aldehyde-type reactant; or contacting a polymer derived from ethylenic reactant and subsequently contacting with a solid polymer derived from ethylenic reactants only.

156 Contacting with a hydrocarbon and an aldehyde or aldehyde derivative as reactants at least one of which is saturated, their condensate or solid polymer thereof.

157 Contacting with an amine, a material containing a N-C(=X)- or N-S(=O)- (X is chalcogen) reactant and an aldehyde or aldehyde derivative at least one of which is saturated, their condensate or solid polymer thereof.

158 Reactant, condensate, or solid polymer contains an element other than C, H, N, or O; or wherein a coreactant is not an aldehyde or aldehyde-type reactant, alcohol, amine, or reactant containing a N-C(=O)- group.

159 Reactant derived from alcohol containing an aryl group or eight or more carbon atoms.

160 Solid polymer derived from ethylenic reactants only contains an element other than C, H, O, or N.

161 Solid polymer derived from ethylenic reactants only derived from reactant containing a heterocyclic ring or fused-brided-ring system excluding an anhydride group which produces the fused- or bridged-ring system or heterocyclic ring.

162 Solid polymer derived from ethylenic reactant only derived from reactant containing hydroxyl or ether group.

163 Solid polymer derived from ethylenic reactants only containing a carboxylic acid, ester, or anhydride group.

164 Solid polymer derived from unsaturated hydrocarbon.

165 With polycarboxylic acid or derivative and a polyol at least one of which is saturated, a condensate or solid polymer thereof; or with solid polymer derived from at least one polycarboxylic acid or derivative and at least one polyol wherein at least one the reactants forming the solid polymer is saturated.

166 Two or more solid polymers present other than derived from a polycarboxylic acid or derivative and a polyol.

167 Polycarboxylic acid or derivative or polyol contains an atom other than C, H, or O; or wherein a polycarboxylic acid or derivative or polyol or condensate thereof is reacted with a reactant containing atoms other than C, H, or O prior to blending with the solid polymer; or wherein a coreactant with the polycarboxylic acid or derivative or polyol contains an atom other than C, H, or O.

167.5 With a reactant which is a fatty acid glycerol ester, a fatty acid or salt derived from a naturally occurring glyceride, tall oil, or a fatty acid derived from tall oil.

168 Polycarboxylic acid or derivative, polyol, or other coreactant contains an ethylenic group; or wherein a condensate thereof has been prepared from a polycarboxylic acid or derivative and a polyol and subsequently reacted with an ethylenic reactant.

169 Solid polymer derived from ethylenic reactants only derived from at least one reactant containing an atom other than C, H, or O.

170 Solid polymer derived from ethylenic reactants only derived from at least one reactant containing an oxygen atom.
SYNTHETIC RESINS (Class 520, Subclass 1)

MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFT; MIXING OF STCP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

At least one solid polymer derived from ethylenic reactants only

...With polycarboxylic acid or derivative and a polyol at least one of which is saturated, a condensate or solid polymer thereof; or with solid polymer derived from at least one polycarboxylic acid or derivative and at least one polyol wherein at least one the reactants forming the solid polymer is saturated

...Polycarboxylic acid or derivative, polyol, or other coreactant contains an ethylenic group; or wherein a condensate thereof has been prepared from a polycarboxylic acid or derivative and a polyol and subsequently reacted with an ethylenic reactant

...Solid polymer derived from ethylenic reactants only derived from at least one hydrocarbon reactant containing at least two ethylenic groups

...Polycarboxylic acid or derivative contains three or more carboxylic acid groups or derivatives thereof; or wherein a polyol contains at least three hydroxyl groups

...From two or more polyols

...From two or more carboxylic acids or derivatives thereof

...Solid polymer derived from ethylenic reactants only derived from at least one reactant containing an atom other than C, H, O, or Hal

...Solid polymer derived from ethylenic reactants only derived from at least one reactant containing an oxygen atom

...Solid polymer derived from ethylenic reactants only derived from unsaturated hydrocarbon

...With a polycarboxylic acid or derivative and a polyamine or the corresponding salt thereof; or with a lactam; or with an aminocarboxylic acid; or with the corresponding polymers; and wherein the monomer or polymer was derived from at least one saturated reactant

...Two or more solid polymers other than prepared from a polycarboxylic acid or derivative and a polyamine, a lactam, an aminocarboxylic acid or...
Synthetic Resins (Class 520, Subclass 1)
Mixing of two or more solid polymers; mixing of solid polymer or SICP with SICP or SPFI; mixing of SICP with an ethylenic agent; mixing of solid polymer with a chemical treating or ethylenic agent; or processes of forming or reacting; or the resultant product of any of the above operations

\* At least one solid polymer derived from ethylenic reactants only
\* Polymer mixture of two or more solid polymers derived from ethylenically unsaturated reactants only; or mixtures of said polymer mixture with a chemical treating agent; or products or processes of preparing any of the above mixtures

\* Treating polymer or polymer mixture with a chemical treating agent other than solid polymer

194 \* Agent is an organic material
195 \* Contains a metal atom
196 \* Agent contains a metal atom
197 \* Specified blending process
198 \* With subsequent physical treatment
199 \* Solid polymer derived from fluorine-containing ethylenic reactant
200 \* Fluorine-containing reactant contains atoms other than C, H, or Hal
201 \* Solid polymer derived from metal-containing ethylenic reactant
202 \* Solid polymer derived from reactant containing an acetylenic group
203 \* Solid polymer derived from ethylenic reactant containing a heterocyclic nitrogen
204 \* Heterocyclic reactant contains at least two hetero atoms in the same ring and at least one of which is nitrogen
205 \* Heterocyclic reactant is an imide or lactam
206 \* Solid polymer derived from reactant containing a chalcogen atom (O, S, Se, Te) as part of a heterocyclic ring
207 \* Heterocyclic reactant contains anhydride group
208 \* Heterocyclic reactant contains 1,2-epoxy group
209 \* Solid polymer derived from reactant containing elements other than C, H, O, N, S, or Cl
210 \* Solid polymer derived from reactant containing a fused- or bridged-ring system
211 \* Fused- or bridged-ring reactant contains at least two ethylenic groups
212 \* Solid polymer derived from sulfur-containing reactant

\* Title Change
* Newly Established Subclass

\* Indent Change
& Position Change
SYNTHETIC RESINS (Class 520, Subclass 1)

MIXING OF TWO OR MORE SOLID POLYMERS:
MIXING OF SOLID POLYMER OR SICP WITH
STCP OR SPFP; MIXING OF SICP WITH AN
ETHYLENIC AGENT; MIXING OF SOLID
POLYMER WITH A CHEMICAL TREATING OR
ETHYLENIC AGENT; OR PROCESSES OF
FORMING OR REACTING; OR THE
RESULTANT PRODUCT OF ANY OF THE
ABOVE OPERATIONS

At least one solid polymer derived
from ethylenic reactants only

Polymer mixture of two or more solid
polymers derived from
ethylenically unsaturated
reactants only; or mixtures of
said polymer mixture with a
chemical treating agent; or
products or processes of preparing
any of the above mixtures

Solid polymer derived from reactant
containing at least two ethylenic
groups and is devoid of aryl ring

At least two polymers derived from
reactants containing two or more
ethylenic groups and devoid of
an aryl ring

At least one of these polymers is
derived from two or more
reactants

Solid polymer derived from
(meth)acrylonitrile

Solid polymer derived from
vinyl(idene) chloride

Solid polymer derived from ethylene
or propylene

Solid polymer derived from an
aromatic hydrocarbon reactant

Polymer derived from ethylenic
reactants only mixed with
ethylenic reactant

Reactions with ethylenic reactants
in two or more diverse phases,
e.g., bulk, emulsion, melt,
solution, etc.

Contacting a solid polymer derived
from ethylenic reactants only
with an ethylenic reactant in the
presence of a specified material

Specified material contains
transition metal atom

In presence of water

Contains nontransition metal atom

Specified material contains a
carbon or hydrogen atom bonded
directly to a metal atom

Metal atom is aluminum

Metal atom is Group IA metal atom
(Li, Na, K, Rb, Cs, Fr)

Specified material contains a boron
atom

Specified material is a
carbohydrate or is a solid
synthetic polymer not intended
to be in the final product

Material contains a free alcohol
group or is alcoholate thereof

† Title Change
* Newly Established Subclass

SYNTHETIC RESINS (Class 520, Subclass 1)

. MIXING OF TWO OR MORE SOLID POLYMERS;
. MIXING OF SOLID POLYMER OR SICP WITH
. SICP OR SPPF; MIXING OF SICP WITH AN
. ETHYLENIC AGENT; MIXING OF SOLID
. POLYMER WITH A CHEMICAL TREATING OR
. ETHYLENIC AGENT; OR PROCESSES OF
. FORMING OR REACTING; OR THE
. RESULTANT PRODUCT OF ANY OF THE
. ABOVE OPERATIONS

. At least one solid polymer derived
. from ethylenic reactants only
. Polymer derived from ethylenic
. reactants only mixed with
. ethylenic reactant

. Ethylenic reactant contains nitrogen
. heterocycle, e.g., pyridine,
. diazines, etc.

. Nitrogen heterocycle contains at
. least two nitrogen atoms in the
. same ring

. Imide

. Lactam

. Ethylenic reactant contains a
. chalcogen heterocycle

. Cyclic anhydride

. Three-membered ring containing two
. carbon and one chalcogen atom

. Ethylenic reactant contains a
. phosphorus atom

. Ethylenic reactant contains atoms
. other than C, H, O, N, S, or Cl

. Ethylenic reactant contains a fused-
. or bridged-ring system

. Dicyclopentadiene-containing group

. Ethylenic reactant contains a sulfur
. atom

. Ethylenic reactant contains a
. chlorine atom and is other than
. vinyl(idene) chloride

. Ethylenic material contains a
. nitrogen atom and is other than
. (meth)acrylonitrile

. Block copolymer derived from
. nitrogen-containing reactant

. Nitrogen atom is part of a nitrile
. group and is other than
. (meth)acrylonitrile

. Nitrogen atom is part of a carboxylic
. acid amide group

. Ethylenic reactant contains a
. cycloaliphatic group

. Ethylenic reactant contains an
. oxygen atom

. Block copolymer derived from
. oxygen-containing reactant

. Oxygen atom in part of a ketone or
. ketene group

. Oxygen atom is part of a carboxylic
. acid group

. Unsaturated fatty acid derived
. from a naturally occurring
. glyceride, tall oil, or an
. unsaturated fatty acid derived
. from tall oil

. Oxygen atom is part of a carboxylic
. acid ester group
SYNTHETIC RESINS (Class 520, Subclass 1)

MIXING OF TWO OR MORE SOLID POLYMERS;
MIXING OF SOLID POLYMER OR SICP WITH
SICP OR SIFIC; MIXING OF SICP WITH AN
ETHYLENIC AGENT; MIXING OF SOLID
POLYMER WITH A CHEMICAL TREATING OR
ETHYLENIC AGENT; OR PROCESSES OF
FORMING OR REACTING; OR THE
RESULTANT PRODUCT OF ANY OF THE
ABOVE OPERATIONS

At least one solid polymer derived
from ethylenic reactants only

Chemically after treated solid
polymers derived from
ethylenically unsaturated monomers
only

Polymer derived from fluorine
monomer

Vulcanized or crosslinked in
presence of chemical treating
agent

Halogen containing chemical
treating agent; or dehalogenated

Polymer derived from silicon monomer

Polymer derived from monomer
containing atom other than: C, H,
N, O, S, halogen or group IA or
IIA carboxylate

Polymer derived from monomer
containing nitrogen atom as part
of a heterocyclic ring

Oxygen atom in ring or bonded
directly to the nuclear carbon
of ring monomer

Lactam monomer, e.g., vinyl
pyrrolidone, etc.

6 membered ring containing 5
carbons and 1 nitrogen, monomer,
e.g., vinyl pyridine, etc.

Polymer derived from monomer
containing cyclohexane as part of
a heterocyclic ring

Polymer derived from monomer
containing chalcogen as part of
a heterocyclic ring other than
solely as cyclic anhydride of
ethylenically unsaturated
dicarboxylic acid

Three membered chalcogen ring
monomer, e.g., oxirane, etc.

Polymer derived from carboxylic acid
anhydride monomer

Sulfur containing chemical treating
agent

Nitrogen containing chemical
treating agent other than
unsaturated amine as sole
nitrogen

Esterified, i.e., preparation of
COOR linkage

Hydrolyzed; neutralized; or metal
containing chemical treating
agent

Polymer derived from acrylic or
methacrylic esters, or vinyl
acetate monomer

Alcoholized; transesterified;
hydrolyzed; or metal containing
chemical treating agent; e.g.,
saponified, etc.

Nitrogen containing chemical
treating agent

Polymer derived from halogen monomer

At least one monomer containing two
or more ethylenic groups

Monomer containing two or more
nitrogen atoms, or two or more
nitrogen containing monomers

Polymer derived from sulfur monomer

Polymer derived from ketone monomer

Polymer derived from aldehyde
monomer

Polymer derived from alcohol monomer

Polymer derived from other monomer

Polymer derived from acrylonitrile
or methacrylonitrile monomer

Interpolymers

Contains monomer having two or
more ethylenic groups

Polymer derived from acrylamide or
methacrylamide monomer

Polymer derived from carboxylic acid
or derivative monomer other than:
vulcanizate; or
acrylic-or-methacrylic acid, or
derivatives

Butene dioic acid or derivative
monomer

Polymer derived from acrylic or
methacrylic acids, acid halides
or salt monomers

Sulfur or phosphorus containing
chemical treating agent

Nitrogen containing chemical
treating agent

Esterified, i.e., preparation of
COOR linkage

Hydrolyzed; neutralized; or metal
containing chemical treating
agent

Polymer derived from acrylic or
methacrylic esters, or vinyl
acetate monomer

Alcoholized; transesterified;
hydrolyzed; or metal containing
chemical treating agent; e.g.,
saponified, etc.

Polymer derived from halogen monomer

At least one monomer containing two
or more ethylenic groups

Vulcanized or crosslinked, in the
presence of a chemical treating
agent, e.g., cured, etc.

Nitrogen containing chemical
treating agent

Halogend containing chemical
treating agent
SYNTHETIC RESINS (Class 520, Subclass 1)
MIXING OF TWO OR MORE SOLID POLYMERS;
MIXING OF SOLID POLYMER OR SICP WITH
SICP OR SPFI; MIXING OF SICP WITH AN
ETHYLENIC AGENT; MIXING OF SOLID
POLYMER WITH A CHEMICAL TREATING OR
ETHYLENIC AGENT; OR PROCESSES OF
FORMING OR REACTING; OR THE
RESULTANT PRODUCT OF ANY OF THE
ABOVE OPERATIONS

. At least one solid polymer derived
from ethylenic reactants only
...Chemically after treated solid
polymers derived from
ethylenically unsaturated monomers
...Polymers derived from halogen monomers
...At least one monomer contains two
more ethylenic groups
331.3 Nitrogen containing chemical
...Polymer containing chlorine
331.4 Monomer contains chlorine
...Vinyl chloride or vinylidene
chloride
331.6 Halogen containing chemical
treating agent
331.7 Ethylene-propylene terpolymer, e.g.,
EPT, EPDM, EPR, etc.
331.8 Sulfur containing chemical treating
...Polymer derived from monomer
containing at least two ethylenic
groups or diene rubber
331.9 Monomer contains non-conjugated
diene group or at least one
fused or bridged ring or at
least one cycloaliphatic
structure
332.1 Di vinyl benzene
332.2 Halogen containing chemical
treating agent
332.3 Sulfur containing chemical treating
agent
332.4 Vulcanized in the presence of a
chemical treating agent, e.g.,
cured, crosslinked, etc.
332.5 Sulfur containing chemical
...Polymer containing chemical
treating agent
332.6 Sulfur containing chemical
treating agent
332.7 Nitrogen containing chemical
treating agent
332.8 Interpolymer with aliphatic
hydrocarbon monomer (includes
additional diene monomer)
332.9 Interpolymer with aromatic
...Polymer derived from aromatic
hydrocarbon rubber
333.1 Isoprene or diene rubber other than
buta diene rubber
333.2 Butadiene homopolymer
333.3 ...Polymer derived from aromatic
hydrocarbon monomer, e.g.,
styrene, etc.
333.4 Halogenated polymer
333.5 Sulfur containing chemical treating
agent
333.6 Nitrogen containing chemical
treating agent
333.7 Polymer derived from acyclic
hydrocarbon monomer only
333.8 Air, elemental oxygen, ozone or
peroxide chemical treating agent
333.9 Sulfur containing chemical treating
agent
334.1 Halogenated polymer
334.1 Chemical treating agent contains
boron or boron-containing compound
other than boron trihalide or
nonmetal complex thereof
338 ...Chemical treating agent contains
...elemental hydrogen or an elemental
hydrogen-liberating compound,
e.g., hydrogenation, etc.
339 ...Treating in the presence of an
elemental metal or inorganic
metallic compound
340 ...Chemical treating agent contains a
phosphorus atom
341 ...Contains a sulfur atom
342 ...Chemical treating agent contains a
silicon atom
343 ...Chemical treating agent contains a
sulfur atom
344 ...Inorganic sulfur compound contains
...sulfur atom bonded to at least
two oxygen atoms
345 ...With peroxide, ozone, or free oxygen
346 ...With sulfur-free organic compound
347 ...Sulfur-free organoc compound
...contains heterocyclic nitrogen
348 ...Sulfur-containing heterocyclic
compound
349 ...Heterocyclic ring contains sulfur
and nitrogen atoms
350 ...Mercaptan or mercaptide
351 ...Organic compound contains sulfur and
...nitrogen atoms
352 ...One or more sulfur atoms of the
...nitrogen-containing compound are
double bonded to carbon
353 ...Sulfur compound contains sulfur atom
...bonded to at least two oxygen
atoms, e.g., sul fonate, etc.
354 ...Elemental sulfur or inorganic sulfur
compound
355 ...Chemical treating agent contains
hydrogen halide, elemental
halogen, organic
...halogen-containing compound, or
...compound containing only halogen
atoms
356 ...Treating in the presence of
...elemental halogen
357 ...Treating in the presence of a metal
...or metal-containing compound
358 ...Treating in the presence of water
359.1 ...Treating in the presence of organic
...halogen-containing compound
SYNTHETIC RESINS (Class 520, Subclass 1)

MIXING OF TWO OR MORE SOLID POLYMERS;
MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPP;
MIXING OF SICP WITH AN ETHYLENIC AGENT;
MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

At least one solid polymer derived from ethylenic reactants only

Chemical treating agent contains
hydrogen halide, elemental halogen, organic halogen-containing compound, or compound containing only halogen atoms

Treating in the presence of organic halogen-containing compound

Organic halogen-containing compound contains a hetero ring
Organic halogen-containing compound contains oxygen
Organic halogen-containing compound contains only carbon, hydrogen, and halogen
Organic halogen-containing compound contains an aromatic group

Chemical treating agent contains
- metal or metal-containing compound
- two or more diverse elemental metals or compounds thereof; or same metal in two or more distinct compounds; or diverse metals in same compound
- elemental metal or inorganic compound thereof only
- aluminum or Group IIB (Zn, Cd, Hg) metal or compound thereof
- organometallic compound and elemental metal or inorganic compound thereof
- aluminum metal or compound thereof
- contains Group IIA (Li, Na, K, Rb, Cs, Fr) or Group IIA (Be, Mg, Ca, Sr, Ba, Ra) elemental metal or compound thereof
- elemental metal or inorganic metal compound
- metal oxide
- metal hydroxide
- contains Group IB (Cu, Ag, Au), IIB (Zn, Cd, Hg), IIIA (Al, Ga, In, Tl), IV (Ti, Zr, Hf, Ga, Sn, Pb), and VIIIA (Fe, Co, Ni, Ru, Rh, Pd, Os, Ir, Pt) elemental metal or compound thereof
- elemental metal or inorganic compound thereof
- metal oxide
- Group IIB metal (Zn, Cd, Hg) oxide

Chemical treating agent is a nitrogen-containing compound

Contains nitrogen atom in a heterocyclic ring

Nitrogen-containing compound has at least one nitrogen-to-nitrogen bond

Nitrogen-containing compound contains at least one nitrile or isonitrile group; or a nitro group which is other than as an amine or ammonium salt

Ammonia, ammonium hydroxide, or salts thereof

Organic amine

Amine contains a hydroxyl group

Three or more amine groups

Two amine groups

Chemical treating agent contains
- elemental oxygen or oxygen-containing compound
- oxygen compound contains at least one alcohol group
- oxygen compound contains an ether group
- oxygen compound is a carboxylic acid, ester, anhydride, or lactone thereof
- oxygen compound contains a peroxy group (O-O-)
- specified oxygen-containing compound is air, elemental oxygen, or ozone

Solid polymer derived from reactant containing atoms other than C, H, N, Si, P, chalcogen, halogen, or an alkali or alkaline earth metal in salt form

Solid polymer derived solely from phenolic reactants wherein none of the reactants contains a plurality of methylol groups or derivatives thereof

Mixed with ethylenically unsaturated reactant or polymer derived therefrom

Unsaturated aromatic reactant or polymer thereof

Mixed with silicon-containing reactant or polymer thereof

Mixed with -O-C(-O)-O-, hal-C(-O)-O-, or hal-C(-O)-hal containing reactant or polymer derived therefrom

Mixed with -N=C=X-containing reactant or polymer thereof (X is chalcogen)
SYNTHETIC RESINS or NATURAL RUBBERS -- PART OF THE CLASS 520 SERIES

SEPTEMBER 2007

SYNTHETIC RESINS (Class 520, Subclass 1)

MIXING OF TWO OR MORE SOLID POLYMERS;
MIXING OF SOLID POLYMER OR SICP WITH
STCP OR SPFT; MIXING OF STCP WITH AN
ETHYLENIC AGENT; MIXING OF SOLID
POLYMER WITH A CHEMICAL TREATING OR
ETHYLENIC AGENT; OR PROCESSES OF
FORMING OR REACTING; OR THE
RESULTANT PRODUCT OF ANY OF THE
ABOVE OPERATIONS

Solid polymer derived solely from
phenolic reactants wherein none of
the reactants contains a plurality
of methylol groups or derivatives
thereof

Mixed with 1,2-epoxy containing
reactant or polymer therefrom, or
wherein polymer contains at least
one 1,2-epoxy group

Mixed with carboxylic acid or
derivative reactant or polymer
derived therefrom

Solid polymer derived from aldehyde,
aldehyde derivative, or liquid
polymer thereof as sole reactant
and wherein none of the reactants
contains a plurality of methylol
groups or derivatives thereof

Mixed with -N=C=X-containing reactant
or polymer derived therefrom (X
is a chalcogen)

Mixed with carboxylic acid or
derivative reactant or polymer
derived therefrom

Mixed with ethylenically unsaturated
reactant or polymer derived
therefrom

Solid polymer derived from aldehyde
or derivative containing halogen

Solid polymer is derived from
1,2-epoxy compound containing only
one 1,2 epoxy group as sole
reactant and wherein none of the
reactants contains a plurality of
methylol groups or derivatives
thereof

Mixed with -N=C=X-containing reactant
or polymer derived therefrom (X
is a chalcogen)

Solid polymer derived from at least
one carboxylic acid or derivative

Solid polymer derived from at least
one lactam; from an amino
carboxylic acid or derivative; or
from a polycarboxylic acid or
derivative

Solid polymer derived from an amino
carboxylic acid or derivative;
from a polycarboxylic acid or
derivative; from at least one
lactam; or from a polycarboxylic acid
salt of a polycarboxylic acid

Solid polymer derived from
heterocyclic materials as sole
reactants wherein each of the
heterocyclic materials contains a
hetero ring other than solely as a
lactam, 1,2-epoxy or carboxylic
acid anhydride and wherein none of
the reactants contains a plurality
of methylol groups or derivatives
thereof

Solid polymer derived from carboxylic
acid cyclic ester, e.g., lactone,
etc.

Solid polymer derived from hydrocarbon
or halogenated hydrocarbon as sole
reactant or mixture thereof

Solid polymer derived from ferrocene:
cyclic materials as sole
reactants wherein each of the
heterocyclic materials contains a
hetero ring other than solely as a
lactam, 1,2-epoxy or carboxylic
acid anhydride and wherein none of
the reactants contains a plurality
of methylol groups or derivatives
thereof

Solid polymer derived from at least
one carboxylic acid or derivative

Solid polymer derived from at least
one lactam; from an amino
carboxylic acid or derivative; or
from a polycarboxylic acid or
derivative

Solid polymer derived from an amino
carboxylic acid or derivative;
from a polycarboxylic acid or
derivative; from at least one
lactam; or from a polycarboxylic acid
salt of a polycarboxylic acid

Solid polymer derived from reactant
containing unsaturation

Solid polymer derived from imide
reactant

Mixed with reactant containing more
than one 1,2-epoxy group per
mole or polymer derived
therefrom

Solid polymer derived from
hetero-O-cyclic compounds as sole
reactants wherein at least one
reactant contains a hetero-O-ring
other than solely as a 1,2-epoxy or

anhydride, and wherein none of the
reactants contains a plurality of
methylol groups or derivatives
thereof

Mixed with carboxylic acid or
derivative reactant or polymer
derived therefrom

Mixed with unsaturated reactant or
polymer derived therefrom

Mixed with -O-(C=O)- or hal-C(O)-
reactant or polymer derived
therefrom

Mixed with aldehyde or aldehyde
derivative or polymer derived
therefrom

Mixed with carboxylic acid or
derivative reactant or polymer
derived therefrom

Mixed with ethylenically unsaturated
reactant or polymer derived
therefrom

Mixed with -0-C(=O)- or hal-C(=O)-
reactant or polymer derived
therefrom

Mixed with aldehyde or aldehyde
derivative or polymer derived
therefrom

Mixed with 1,2-epoxy reactant
containing more than one 1,2-epoxy
group per mole or polymer derived
therefrom

Mixed with carboxylic acid or
derivative reactant or polymer
derived therefrom
SYNTHETIC RESINS (Class 520, Subclass 1)

MIXING OF TWO OR MORE SOLID POLYMERS;
MIXING OF SOLID POLYMER OR SICP WITH
SICP OR SPFI; MIXING OF SICP WITH AN
ETHYLENIC AGENT; MIXING OF SOLID
POLYMER WITH A CHEMICAL TREATING OR
ETHYLENIC AGENT; OR PROCESSES OF
FORMING OR REACTING; OR THE
RESULTANT PRODUCT OF ANY OF THE
ABOVE OPERATIONS

Solid polymer derived from at least
one carboxylic acid or derivative

Solid polymer derived from at least
one lactam; from an amino
carboxylic acid or derivative; or
from a polycarboxylic acid or
derivative

Solid polymer derived from an amino
carboxylic acid or derivative;
from a polypeptide and a
polycarboxylic acid or
derivative; from at least one
lactam; or from a polypeptide salt
of a polycarboxylic acid

Mixed with -N=C=X reactant or
polymer derived therefrom (X is
chalcogen)

Mixed with polycarboxylic acid or
derivative and polyhydroxy
reactant or polymer thereof

Mixed with ethyleneically
unsaturated reactant or polymer
therefrom

Mixed with aldehyde or aldehyde
derivative reactant or polymer
therefrom

Contains amine-, N-C(=X)-, or
N-S(=O)- containing reactant or
polymer thereof (X is
chalcogen)

Contains phenolic reactant or
polymer thereof

Mixed with a reactant containing a
single 1,2-epoxy group per mole
or polymer derived therefrom

Mixed with silicon containing
reactant or polymer derived from
Mixed with additional
polycarboxylic acid and a
polypeptide; amino carboxylic acid
or derivative; polypeptide salt of
a polycarboxylic acid; lactam;
or polymer derived therefrom

Mixed with 0-C(=O)-O-, hal-C(=O)-O-, or hal-C(=O)-hal reactant or
polymer derived therefrom

Solid polymer derived from hydroxyl
group-containing reactant

Solid polymer derived from compound
containing more than two amine
groups

Solid polymer derived from compound
containing more than two
carboxylic acid groups or
derivatives thereof

Solid polymer derived from
carboxylic acid or derivative
reactant; or derived from di-
or higher ester of a polycarboxylic
acid as sole reactant

Mixed with reactant containing more
than one 1,2-epoxy group per
mole or polymer derived
therefrom

Mixed with 0-C(=O)-O-, hal-C(=O)-O-, or hal-C(=O)-hal containing reactant or polymer
derived therefrom or wherein
solid polymer is derived from a
hal-C(=O)-hal, 0-C(=O)-O-, or
hal-C(=O)-O-, a polycarboxylic
acid or derivative and a
polyhydroxy reactant

Mixed with -N=C=X reactant or
polymer derived therefrom (X is
chalcogen); or wherein solid
polymer is derived from a -N=C=X
reactant and also a
polymeric reactant or derivative and a polyhydroxy
reactant

Blocked isocyanate reactant or
polymer derived therefrom

Silicon, phosphorus, or halogen
containing reactant or polymer
derived therefrom

Heterocyclic containing reactant
or polymer derived therefrom
other than as an anhydride of a
polycarboxylic acid

Sulfur, selenium, or tellurium
containing reactant other than
X in a -N=C=X group or polymer
derived therefrom

Mixed with -O-C(=O)-O-, hal-C(=O)-O-, or hal-C(=O)-hal reactant or
polymer derived therefrom

Polyhydroxy reactant contains
ethylene unsaturation

Fused or bridged ring system
containing, or non-aryl
carboxylic ring containing
reactant

Reactant contains an aryl group
bonded to an oxygen atom

Mixed with -N=C=X reactant or polymer derived
therefrom contains plural ether
linkages

Mixed with -N=C=X reactant or polymer derived
therefrom contains at least one
aryl group

# Title Change
* Newly Established Subclass
0 Indent Change
& Position Change
SYNGETIC RESINS (Class 520, Subclass 1)

MIXING OF TWO OR MORE SOLID POLYMERS;
MIXING OF SOLID POLYMER OR SICP WITH
SICP OR SPIF; MIXING OF STCP WITH AN
ETHYLENIC AGENT; MIXING OF SOLID
POLYMER WITH A CHEMICAL TREATING OR
ETHYLENIC AGENT; OR PROCESSES OF
FORMING (#O-REACTIONS; OR THE
RESULTANT PRODUCT OF ANY OF THE
AFTER OPERATIONS

...Solid polymer derived from at least
one carboxylic acid or derivative

...Solid polymer derived from at least
one lactam; from an amino
carboxylic acid or derivative; or
from a polyacryllic acid or

dervative

...Solid polymer derived from
polycarboxylic acid or derivative
reactant; or derived from di- or
higher ester of a polyacrylic acid
as sole reactant

...Mixed with -N=C=X reactant or
polymer derived therfrom (X is
chalcogen); or wherein solid
polymer is derived from a -N=C=X
reactant and also a
polyacrylic acid or
derivative and a polyhydroxy
reactant

* 440.13 ...Solid polymer derived from
polyacrylic acid or
derivative and a polyhydroxy
compound wherein said
polyacrylic acid or derivative
contains three or more
hydroxy groups or
contains at least one ether
group

* 440.14 ...Solid polymer derived from
polyacrylic acid or
derivative and a polyhydroxy
compound wherein said
polyhydroxy reactant contains
three or more hydroxy groups or
contains at least one ether

group

* 440.16 ...Solid polymer derived from two or
more polycarboxylic acid or
derivatives and a single
polyhydroxy compound

441 ...Mixed with aldehyde or aldehyde
derivative reactant or polymer
derived therefrom

442 ...Contains phenolic reactant or
polymer thereof

443 ...Contains an amino, -N(C(=O)=O-
or
-N=S(=O)=O-containing reactant or
polymer thereof (X is
chalcogen)

444 ...Mixed with polycarboxylic acid or
derivative and polyhydroxy
reactant or polymer thereof

444.5 ...Solid polymer derived from or
system contains a reactant
which is a fatty acid glycerol
ester, a fatty acid or salt
derived from a naturally
occurring glyceride, tall oil,
or fatty acid derived from
tall oil

445 ...Mixed with ethylenically un
saturated reactant or polymer
therefrom

446 ...Mixed with silicon-containing
reactant or polymer derived
therefrom

447 ...Solid polymer derived from
polyacrylic acid or
derivative and a polyhydroxy
compound derived from reactant
containing ethylenic unsaturation

448 ...Solid polymer derived from
polyacrylic acid or
derivative and polyhydroxy
compound derived from two or
more polycarboxylic acids or
derivatives

449 ...Mixed with 1,2-epoxy reactant or
polymer derived therfrom

* 440.13 ...Solid polymer derived from
carboxylic acid or derivative reactant

451 ...Solid polymer derived from carboxylic
acid or derivative derived from
ethylenically unsaturated reactant

452 ...Solid polymer derived from -N=C=X
reactant (X is chalcogen)

453 ...Solid polymer derived from -N=C-X
reactant and polyhydroxy reactant

454 ...Mixed with carboxylic acid or
derivative reactant or polymer
derived therefrom; or with
heterocyclic reactant containing
more than one heterocyclic ring;
or polymer thereof

455 ...Mixed with ethylenically unsaturated
reactant or polymer therewith

456 ...Mixed with aldehyde or aldehyde
derivative reactant or polymer
therefrom

457 ...Mixed with -N=C=X reactant or
polymer therewith

458 ...Contains polyhydroxy reactant; or
additional polymer derived from
-N=C=X and polyhydroxy reactant

459 ...Solid polymer derived from -N=C=X
reactant and polyhydroxy reactant
also derived from polyamine
reactant

460 ...Solid polymer derived from -N=C-X
reactant and polyhydroxy reactant
derived from polyhydroxy reactant
containing an other group

461 ...Solid polymer derived from O-C(=O)-O-
or hal-C(=O)-O-containing reactant

462 ...Solid polymer derived from O-C(=O)-O-
or hal-C(=O)-O-containing reactant
and polyhydroxy reactant
SYNTHETIC RESINS (Class 520, Subclass 1)

Mixing of two or more solid polymers; mixing of solid polymer or SICP with SICP or SPFI; mixing of SICP with an ethylenic agent; mixing of solid polymer with a chemical treating or ethylenic agent; or processes of forming or reactivating, or the resultant product of any of the above operations.

463 Mixed with reactant containing more than one 1,2-epoxy group per mole or polymer derived therefrom

464 Mixed with silicon-containing reactant or polymer derived therefrom

465 Mixed with aldehyde or aldehyde derivative reactant or reaction product therefrom

466 Mixed with polycarboxylic acid or derivative and polyhydroxy reactants or polymer thereof; or di- or higher ester of polycarboxylic acid as sole reactant or polymer therefrom

467 Mixed with nitrogen-containing reactant or polymer therefrom

468 Mixed with ethylenically unsaturated reactant or polymer therefrom

469 Mixed with solid polymer derived from O-C(=O)-O- or hal-C(=O)- containing reactant and polyhydroxy reactant derived from at least two polyhydroxy reactants

470 Mixed with solid polymer derived from O-C(=O)-O- or hal-C(=O)- reactant and polyhydroxy reactant contains an atom other than C, H, O or halogen bonded to a C(=O) group

471 Solid polymer derived from ketone reactant and wherein none of the reactants forming the solid polymer contains an aldehyde group or is an aldehyde-type reactant or polymer derived therefrom

472 Solid polymer derived from aldehyde or aldehyde-type reactant and wherein none of the reactants forming the solid polymer contains a phenol-, amine-, -N=C=X, -N-S(=O)- or ketone group or a condensate thereof except when an amine group appears in hexamethylenetetramine or a derivative thereof (X is chalcogen)

473 Solid polymer derived from aldehyde or aldehyde-type reactant containing atoms other than C, H, or O and wherein when hexamethylenetetramine or a derivative is a reactant, there is additionally present a reactant containing atoms other than C, H, or O

474 Solid polymer derived from silicon-containing reactant

475 Mixed with aluminum- or heavy metal-containing reactant or polymer thereof

476 Mixed with reactant containing more than one 1,2-epoxy group per mole or polymer derived therefrom

477 Mixed with silicon-containing reactant or polymer thereof

478 Wherein one of said silicon materials contains Si-H bond

479 Mixed with ethylenically unsaturated reactant or polymer derived therefrom

480 Solid polymer or specified intermediate condensation product derived from at least one phenolic reactant and at least one aldehyde or aldehyde-type reactant or polymer thereof

481 Mixed with reactant containing more than one 1,2-epoxy group per mole or polymer derived therefrom

482 Phenolic-aldehyde or phenolic-aldehyde-type reaction product modified with 1,2-monoepoxide prior to mixing with reactant containing more than one 1,2 epoxy group per mole or polymer derived therefrom

483 Contains sulfur-containing reactant or polymer thereof

484 Contains nitrogen reactant or polymer thereof

485 With specified material

486 Specified material contains nitrogen

487 With silicon-containing reactant or polymer derived therefrom

488 With carboxylic acid or derivative reactant or polymer derived therefrom

489 With additional aldehyde or aldehyde-type reactant or polymer thereof which is distinct from aldehyde or aldehyde-type reactant used in forming solid polymer or SICP; or with nitrogen-containing reactant

490 Wherein phenolic-aldehyde or phenolic-aldehyde-type solid polymer or SICP contains nitrogen or ethylenic unsaturation

491 Mixed with additional aldehyde or aldehyde-type reactants which are part of a SPFI system or polymer thereof
SYNTHETIC RESINS (Class 520, Subclass 1)  
MIXING OF TWO OR MORE SOLID POLYMERS;  
MIXING OF SOLID POLYMER OR SICP WITH  
SICP OR SPIF; MIXING OF SICP WITH AN  
ETHYLENIC AGENT; MIXING OF SOLID  
POLYMER WITH A CHEMICAL TREATING OR  
ETHYLENIC AGENT; OR PROCESSES OF  
FORMING OR REACTING; OR THE  
RESULTANT PRODUCT OF ANY OF THE  
ABOVE OPERATIONS

...Solid polymer or specified  
intermediate condensation product  
derived from at least one phenolic  
reactant and at least one aldehyde  
or aldehyde-type reactant or  
polymer therefrom

492  ...Additional material is a  
hydrocarbon-aldehyde- or  
hydrocarbon-aldehyde-type  
polymer, condensate, or reactants  
therefrom

493  ...Additional material is  
ketone-aldehyde- or  
ketone-aldehyde-type polymer,  
condensate, or reactants thereof

494  .....Contains nitrogen-containing  
reactant or polymer therefrom

495  .....Additional material is amine-,  
N-C(=X)-, or N-S(=O)-containing  
reactant- aldehyde or -aldehyde  
type polymer, condensate, or reactants  
therefrom (X is chalcogen)

496  .....Contains 1,2-epoxy-containing  
reactant or polymer derived  
therefrom

497  .....Heterocyclic nitrogen reactant or  
polymer therefrom, e.g.,  
melamine, etc.

498  .....N-C(=X)-N-containing reactant or  
polymer, e.g., urea, etc. (X is  
chalcogen)

499  .....Contains sulfur reactant or polymer  
therefrom

500  .....Wherein the phenolic-aldehyde- or  
phenolic-aldehyde-type solid  
polymer or SICP is derived from a  
reactant or polymer containing an  
atom other than C, H, or O

501  .....Additional phenol-aldehyde- or  
-aldehyde-type polymer,  
condensation product or reactants  
therefrom

501.5  ...Mixed with reactant which is a fatty  
acid glycerol ester, a fatty acid  
or salt derived from a naturally  
occurring glyceride, tall oil, or  
a fatty acid derived from tall  
oil; or the reaction product of  
yard any of the above with a  
polycarboxylic acid or ester  
forming derivative and a  
polyhydroxy compound

502  ...Mixed with unsaturated reactant or  
polymer derived therefrom
SYNTHETIC RESINS (Class 520, Subclass 1)

521 Solid polymer or SICP derived from at least one ketone reactant and at least one aldehyde or aldehyde derivative reactant

522 ...Mixed with reactant containing more than one 1,2-epoxy group per mole, or polymer derived therefrom

523 ...Solid polymer contains more than one 1,2-epoxy group or is derived from reactant containing at least one 1,2-epoxy group

524 ...Mixed with a reactant containing more than one 1,2-epoxy group per mole, or polymer derived therefrom

525 ...Wherein at least one of said 1,2-epoxy reactants or polymer derived therefrom contains atoms other than C, H, or O

526 .....Contains nitrogen atom

527 .....Contains halogen atom

528 ...Mixed with -N=C=X-containing reactant or polymer therefrom

529 ...Mixed with unsaturated reactant or polymer derived therefrom

530 ...Wherein unsaturated reactant is a carboxylic acid or derivative or polymer derived therefrom

531 ...Wherein unsaturated reactant contains only one free carboxyl group

532 .....Contains polyol reactant or polymer derived therefrom

533 ...Mixed with carboxylic acid or derivative reactant or polymer derived therefrom

534 Solid polymer derived from phenolic reactant

535 ...Solid polymer derived from sulfur-containing reactant

536 ...Solid polymer derived from sulfur dioxide and ethylenically unsaturated reactant

537 ...Solid polymer derived from alkali metal sulfide and halogenated aromatic reactant, e.g., polynylene sulfide, etc.

538 ...Solid polymer derived from phosphorus-containing reactant

539 ...Solid polymer derived from at least one unsaturated reactant and at least one saturated reactant

540 ...Solid polymer derived from nitrogen-containing reactant

CROSS-REFERENCE ART COLLECTIONS

901 RADIAL BLOCK
902 CORB-SHEL
POLYIMIDE OR POLYAMIDE-ACID FORMED BY CONDENSATION OF A POLYAMINE WITH A POLYCARBOXYLIC ACID HAVING AT LEAST THREE CARBOXYL GROUPS OR DERIVATIVES THEREOF

POLYIMIDE FORMED BY ADDITION OF POLYAMINE TO AN UNSATURATED BIS-IMIDE REACTION PRODUCT OF A POLYHYDRIC PHENOL AND EPICHLOROHYDRIN OR DIOXIDE, HAVING A MOLECULAR WEIGHT OF OVER 5,000 (E.G., PHENOXY RESINS)

BLEND OF STATED INCOMPATIBILITY BLEND OF MATCHED OPTICAL PROPERTIES BLEND OF LIMITED GAS PERMEABILITY POWDERED COATING COMPOSITION MATRIX ADMIXED WITH SYNTHETIC FIBER ENCAPSULATED CHEMICAL AGENT UTILITY AS BODY CONTACT (IMPLANT, CONTACT LENS, I.U.D., ETC.)

POLYMER DEGRADATION
MULTIPACKAGE SYSTEM
HYDROGENATION OF A POLYMER
POLYMER MIXTURE CONTAINING BLOCK COPOLYMER IS MIXED OR REACTED WITH CHEMICAL TREATING AGENT

POLYMER DERIVED FROM NITRILE, CONJUGATED DIENE AND AROMATIC CO-MONOMERS

FOREIGN ART COLLECTION

FOR 000 CLASS-RELATED FOREIGN DOCUMENTS
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C. CHANGES TO THE U.S. – I.P.C. CONCORDANCE

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D. CHANGES TO THE DEFINITIONS (Project No. C-7029)

CLASS 525 - SYNTHETIC RESINS OR NATURAL RUBBERS -- PART OF THE CLASS 520 SERIES

Definitions Abolished

Subclasses

440

Definitions Modified

Subclass 28: After the subclass definition, in (1) Note:

Delete:

See subclass 395 for a discussion of terms.

After the subclass definition, in (2) Note:

Delete:

In those instances wherein the solid polyester is reacted with the isocyanate prior to mixing with the unsaturated reactant, see this class, subclass 440.

After the (2) Note:

Insert:

SEE OR SEARCH THIS CLASS, SUBCLASS:

395, for a discussion of the term -N C=X reactant, which includes blocked or masked isocyanates.

440.01, for those instances wherein a solid polyester is reacted with an isocyanate prior to mixing with an unsaturated reactant.
D. CHANGES TO THE DEFINITIONS (Project No. C-7029)

Definitions Established

440.01 Mixed with -N=C=X reactant or polymer derived therefrom (X is chalcogen); or wherein solid polymer is derived from an -N=C=X reactant and also a polycarboxylic acid or derivative and a polyhydroxy reactant:
This subclass is indented under subclass 437. Subject matter wherein the solid polymer derived from polycarboxylic acid or derivative reactant and polyhydroxy reactant, or from a di- or higher ester of a polycarboxylic acid as sole reactant, is mixed with an -N=C=X or blocked -N=C=X reactant or polymer derived therefrom; or wherein the solid polymer is derived from a polycarboxylic acid or derivative reactant, a polyhydroxy reactant, and an -N=C=X or blocked -N=C=X reactant (X is chalcogen).

(1) Note. This subclass provides for a solid polymer derived from at least one polyol and at least one polycarboxylic acid mixed with an -N=C=X reactant, as well as solid polymers derived from at least one polyol, polycarboxylic acid and a compound containing -N=C=X groups mixed with a chemical treating agent.

440.02 Blocked isocyanate reactant or polymer derived therefrom:
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from or reacted with a group convertible to an -N=C=X group, or an -N=C=X group previously reacted with a blocking group.

(1) Note. Blocking an –N=C=X (masked, hidden, etc) is utilized to render the –N=C=X group inert by conversion to an inactive group. The process of reactivation usually merely involves merely heating the blocked reactant to a –N=C=X reactant. The usual mode of rendering is to convert it to the form of a NO- group. Examples of blocking groups include, but are not limited to uretiones, carbamates, carbodiimides, etc.

440.03 Silicon, phosphorus, or halogen containing reactant or polymer derived therefrom:
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from or has been reacted with a silicon, phosphorus, or halogen containing reactant.

440.04 Heterocyclic containing reactant or polymer derived therefrom other than as an anhydride of a polycarboxylic acid:
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from or has been reacted with a heterocyclic containing reactant, and wherein the heterocyclic reactant is other than as an anhydride of a polycarboxylic acid.

440.05 Sulfur, selenium, or tellurium containing reactant other than X in an -N=C=X group or polymer derived therefrom, or in an -N-(C=X)-X group:
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from or has been reacted with a sulfur, selenium, or tellurium containing reactant and wherein X is other than X in an -N=C=X group or polymer derived therefrom, or wherein the X atom is other than in an -N-(C=X)-X group.
D. CHANGES TO THE DEFINITIONS (Project No. C-7029)

440.06 Nitrogen containing reactant other than N in an -N=C=X group or polymer thereof, or in a N-(C=X)-X group:
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from or has been reacted with a nitrogen containing reactant other than N in an -N=C=X group or polymer thereof, or wherein the nitrogen atom is in other than an -N-(C=X)-X group.

440.07 Reactant contains ethylenic unsaturation:
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from or has been reacted with a reactant containing at least one ethylenic group.

440.071 N=C=X reactant or polymer derived therefrom contains ethylenic unsaturation:
This subclass is indented under subclass 440.07. Subject matter wherein the N=C=X reactant contains at least contains at least one ethylenic group.

440.072 Polyhydroxy reactant contains ethylenic unsaturation:
This subclass is indented under subclass 440.07. Subject matter wherein the polyhydroxy reactant contains at least one ethylenic group.

440.08 Fused or bridged ring system containing, or non-aryl carbocyclic ring containing reactant:
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from or has been reacted with a fused- or bridged-ring system containing reactant, or non-aryl carboxylic ring containing reactant.

SEE OR SEARCH THIS CLASS:
520, Synthetic Resins or Natural Rubbers, the Glossary, for a definition of the term “fused or bridged ring system.”

440.09 Reactant contains an aryl group directly bonded to an oxygen atom:
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from or has been reacted with at least one reactant containing an aryl group directly bonded to an oxygen atom.

440.11 N=C=X reactant or polymer derived therefrom contains plural ether linkages:
This subclass is indented under subclass 440.01. Subject matter wherein the -N=C=X reactant or polymer derived therefrom contains plural ether linkages.

440.12 N=C=X reactant or polymer derived therefrom contains at least one aryl group:
This subclass is indented under subclass 440.01. Subject matter wherein the -N=C=X reactant or polymer derived therefrom contains at least one aryl group.

440.13 Solid polymer derived from polycarboxylic acid or derivative and a polyhydroxy compound is derived from a hydroxy containing carboxylic acid or derivative reactant:
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from a single reactant which contains at least one hydroxyl group and at least one carboxylic acid group or derivative.
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440.14 Solid polymer derived from polycarboxylic acid or derivative and a polyhydroxy compound wherein said polycarboxylic acid or derivative contains three or more carboxylic acid or derivative groups:
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from a reactant which contains three or more carboxylic acid or derivative groups.

440.15 Solid polymer derived from polycarboxylic acid or derivative and a polyhydroxy compound wherein said polyhydroxy reactant contains three or more hydroxy groups or contains at least one ether group:
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from a reactant containing three or more hydroxyl or derivative groups, or wherein the solid polymer is derived from at least one reactant containing at least one ether group.

440.16 Solid polymer derived from two or more polycarboxylic acid or derivatives and a single polyhydroxy compound:
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from two or more polycarboxylic acids or derivative reactants and a single polyhydroxy compound.