

EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

The following classification changes will be effected by this Notice of Changes:

<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
Symbols deleted:	B29C	67/0051
	B29C	67/0055
	B29C	67/0059
	B29C	67/0062
	B29C	67/0066
	B29C	67/007
	B29C	67/0074
	B29C	67/0077
	B29C	67/0081
	B29C	67/0085
	B29C	67/0088
	B29C	67/0092
	B29C	67/0096
Symbols newly created:	B29C	64/00
	B29C	64/10
	B29C	64/106
	B29C	64/112
	B29C	64/118
	B29C	64/124
	B29C	64/129
	B29C	64/135
	B29C	64/141
	B29C	64/147
	B29C	64/153
	B29C	64/159
	B29C	64/165
	B29C	64/171
	B29C	64/176
	B29C	64/182
	B29C	64/188
	B29C	64/194
	B29C	64/20
	B29C	64/205
	B29C	64/209
	B29C	64/214
	B29C	64/218
	B29C	64/223
	B29C	64/227
	B29C	64/232
	B29C	64/236
	B29C	64/241
	B29C	64/245

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
	B29C	64/25
	B29C	64/255
	B29C	64/259
	B29C	64/264
	B29C	64/268
	B29C	64/273
	B29C	64/277
	B29C	64/282
	B29C	64/286
	B29C	64/291
	B29C	64/295
	B29C	64/30
	B29C	64/307
	B29C	64/314
	B29C	64/321
	B29C	64/329
	B29C	64/336
	B29C	64/343
	B29C	64/35
	B29C	64/357
	B29C	64/364
	B29C	64/371
	B29C	64/379
	B29C	64/386
	B29C	64/393
	B29C	64/40
Title wording changes:	B29C	67/02
	B29C	67/04
	B29C	67/06
New Definitions:	B29C	64/00
	B29C	64/10
	B29C	64/20
	B29C	64/30
	B29C	64/386
	B29C	64/393
Modified Definitions:	B29C	67/0055
	B29C	67/0062
	B29C	67/0066
	B29C	67/007
	B29C	67/0074
	B29C	67/0077
	B29C	67/0081
	B29C	67/0092
	B29C	67/0096

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
Deleted Definitions:	B29C	67/0051
	B29C	67/0088
Renumbered Definitions:	B29C	67/0055 (renumbered to 64/106)
	B29C	67/0062 (renumbered to 64/124)
	B29C	67/0066 (renumbered to 64/135)
	B29C	67/007 (renumbered to 64/129)
	B29C	67/0074 (renumbered to 64/141)
	B29C	67/0077 (renumbered to 64/153)
	B29C	67/0081 (renumbered to 64/165)
	B29C	67/0092 (renumbered to 64/40)
	B29C	670096 (renumbered to 64/35)
Scheme Warning Notices to be added:	B29C	64/00
	B29C	64/10
	B29C	64/106
	B29C	64/141
	B29C	64/159
	B29C	64/171
	B29C	64/188
	B29C	64/20
	B29C	64/205
	B29C	64/227
	B29C	64/245
	B29C	64/25
	B29C	64/255
	B29C	64/264
	B29C	64/295
	B29C	64/30
	B29C	64/35
	B29C	64/357
	B29C	64/364
	B29C	64/379
	B29C	64/386
	B29C	64/393
Scheme Note to be deleted:	B29C	67/0051
Scheme Note to be modified:	G03F	7/70416

The following subclasses/groups are also impacted by this Notice of Changes:

B22F, B23K, B24B, B24C, B24D, B26B, B28B, B29B, B29C, B29D, B33Y, B41J, B41M, C04B, G03F, H01J

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

This Notice of Changes includes the following *[Check the ones included]:*

1. CLASSIFICATION SCHEME CHANGES
 - A. New, Modified or Deleted Group(s)
 - B. New, Modified or Deleted Warning Notice(s)
 - C. New, Modified or Deleted Note(s)
 - D. New, Modified or Deleted Guidance Heading(s)
2. DEFINITIONS (New or Modified)
 - A. DEFINITIONS (Full definition template)
 - B. DEFINITIONS (Definitions Quick Fix)
3. REVISION CONCORDANCE LIST (RCL)
4. CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)
5. CROSS-REFERENCE LIST (CRL)

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)**SUBCLASS B29C— SHAPING OR JOINING OF PLASTICS; SHAPING OF SUBSTANCES IN A PLASTIC STATE, IN GENERAL; AFTER-TREATMENT OF THE SHAPED PRODUCTS, e.g. REPAIRING**

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title (new or modified)</u> <u>“CPC only” text should normally be enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
U	B29C2063/488	2	{providing the surface with fixing elements on which the plastic liner is bonded}	
Q	B29C64/00	0	Additive manufacturing, i.e. manufacturing of three-dimensional [3D] objects by additive deposition, additive agglomeration or additive layering, e.g. by 3D printing, stereolithography or selective laser sintering	B29C64/00, B29C64/10, B29C64/159, B29C64/171, B29C64/176, B29C64/182, B29C64/188, B29C64/194, B29C64/30, B29C64/307, B29C64/314, B29C64/321, B29C64/329, B29C64/336, B29C64/343, B29C64/364, B29C64/371, B29C64/379
N	B29C64/10	1	Processes of additive manufacturing	
Q	B29C64/106	2	using only liquids or viscous materials, e.g. depositing a continuous bead of viscous material	B29C64/106, B29C64/118
N	B29C64/112	3	using individual droplets, e.g. from jetting heads	
N	B29C64/118	3	using filamentary material being melted, e.g. fused deposition modelling [FDM]	
N	B29C64/124	3	using layers of liquid which are selectively solidified	
N	B29C64/129	4	characterised by the energy source therefor, e.g. by global irradiation combined with a mask	
N	B29C64/135	5	the energy source being concentrated, e.g. scanning lasers or focused light sources	
Q	B29C64/141	2	using only solid materials	B29C64/141, B29C64/147
N	B29C64/147	3	using sheet material, e.g. laminated object manufacturing [LOM] or laminating sheet material precut to local cross sections of the 3D object	
N	B29C64/153	3	using layers of powder being selectively joined, e.g. by selective laser sintering or melting	
N	B29C64/159	2	using only gaseous substances, e.g. vapour deposition	

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
N	B29C64/165	2	using a combination of solid and fluid materials, e.g. a powder selectively bound by a liquid binder, catalyst, inhibitor or energy absorber	
N	B29C64/171	2	especially adapted for manufacturing multiple 3D objects	
N	B29C64/176	3	Sequentially	
N	B29C64/182	3	in parallel batches	
N	B29C64/188	2	involving additional operations performed on the added layers, e.g. smoothing, grinding or thickness control (surface shaping B29C59/00; after-treatment of articles without altering their shape B29C71/00)	
N	B29C64/194	3	during lay-up	
Q	B29C64/20	1	Apparatus for additive manufacturing; Details thereof or accessories therefor	B29C64/20, B29C64/205, B29C64/209, B29C64/214, B29C64/218, B29C64/223, B29C64/227, B29C64/232, B29C64/236, B29C64/241, B29C64/245, B29C64/25, B29C64/255, B29C64/259, B29C64/264, B29C64/268, B29C64/273, B29C64/277, B29C64/282, B29C64/286, B29C64/291, B29C64/295, B29C64/30, B29C64/307, B29C64/314, B29C64/321, B29C64/329, B29C64/336, B29C64/343, B29C64/364, B29C64/371, B29C64/379
N	B29C64/205	2	Means for applying layers	
N	B29C64/209	3	Heads; Nozzles	
N	B29C64/214	3	Doctor blades	
N	B29C64/218	3	Rollers	
N	B29C64/223	3	Foils or films, e.g. for transferring layers of building material from one working station to another	
N	B29C64/227	2	Driving means	
N	B29C64/232	3	for motion along the axis orthogonal to the plane of a layer	
N	B29C64/236	3	for motion in a direction within the plane of a layer	
N	B29C64/241	3	for rotary motion	

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
N	B29C64/245	2	Platforms or substrates (support structures intended to be sacrificed after manufacture B29C64/40)	
N	B29C64/25	2	Housings, e.g. machine housings	
N	B29C64/255	2	Enclosures for the building material, e.g. powder containers	
N	B29C64/259	3	Interchangeable	
N	B29C64/264	2	Arrangements for irradiation	
N	B29C64/268	3	using laser beams; using electron beams [EB]	
N	B29C64/273	4	pulsed; frequency modulated	
N	B29C64/277	3	using multiple radiation means, e.g. micromirrors or multiple light-emitting diodes [LED]	
N	B29C64/282	4	of the same type, e.g. using different energy levels	
N	B29C64/286	3	Optical filters, e.g. masks	
N	B29C64/291	3	for operating globally, e.g. together with selectively applied activators or inhibitors	
N	B29C64/295	2	Heating elements	
N	B29C64/30	1	Auxiliary operations or equipment	
N	B29C64/307	2	Handling of material to be used in additive manufacturing	
N	B29C64/314	3	Preparation	
N	B29C64/321	3	Feeding	
N	B29C64/329	4	using hoppers	
N	B29C64/336	4	of two or more materials	
N	B29C64/343	3	Metering	
Q	B29C64/35	2	Cleaning	B29C64/35, B29C64/357
N	B29C64/357	2	Recycling	
N	B29C64/364	2	Conditioning of environment	
N	B29C64/371	3	using an environment other than air, e.g. inert gas	
N	B29C64/379	2	Handling of additively manufactured objects, e.g. using robots	
Q	B29C64/386	2	Data acquisition or data processing for additive manufacturing	B29C64/386, B29C64/393
N	B29C64/393	3	for controlling or regulating additive manufacturing processes	
N	B29C64/40	1	Structures for supporting 3D objects during manufacture and intended to be sacrificed after completion thereof	
U	B29C67/0048	1	{Local deformation of formed objects }	

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
D	B29C67/0051	1	<i>{Rapid manufacturing and prototyping of 3D objects by additive depositing, agglomerating or laminating of plastics material, e.g. by stereolithography or selective laser sintering (stereolithographic techniques for making dental prostheses A61C13/0013; selective sintering of metallic powder B22F3/1055; from ceramic or cementitious material B28B1/00; photomechanical, e.g. photolithographic, production of textured or patterned surfaces G03F7/00; selective printers for printing on three-dimensional objects B41J 3/4073)}</i>	<Administrative transfer to B29C64/00>
D	B29C67/0055	2	<i>{using only liquids or viscous materials, e.g. depositing a continuous bead of viscous material}</i>	<Administrative transfer to B29C64/106>
D	B29C67/0059	3	<i>{using individual droplets, e.g. from jetting heads}</i>	<Administrative transfer to B29C64/112>
D	B29C67/0062	3	<i>{using layers of liquid which are selectively solidified}</i>	<Administrative transfer to B29C64/124>
D	B29C67/0066	4	<i>{by a concentrated source of energy, e.g. a scanning laser or a focused light source}</i>	<Administrative transfer to B29C64/135>
D	B29C67/007	4	<i>{by a source of energy not covered by B29C67/0066, e.g. by global irradiation combined with a mask}</i>	<Administrative transfer to B29C64/129>
D	B29C67/0074	2	<i>{using only solid materials, e.g. laminating sheet material precut to local cross sections of the 3D object}</i>	<Administrative transfer to B29C64/141>
D	B29C67/0077	3	<i>{using layers of powder being selectively joined, e.g. by selective laser sintering or melting}</i>	<Administrative transfer to B29C64/153>
D	B29C67/0081	2	<i>{using a combination of solid and liquid materials, e.g. a powder selectively bound by a liquid binder, catalyst, inhibitor or energy absorber}</i>	<Administrative transfer to B29C64/165>
D	B29C67/0085	2	<i>{Apparatus components, details or accessories}</i>	<Administrative transfer to B29C64/20>
D	B29C67/0088	3	<i>{for control or data processing, e.g. algorithms}</i>	<Administrative transfer to B29C64/386>-
D	B29C67/0092	3	<i>{Support structures for the 3D object during manufacture, e.g. using sacrificial material}</i>	<Administrative transfer to B29C64/40>
D	B29C67/0096	3	<i>{for cleaning or recycling}</i>	<Administrative transfer to B29C64/35>

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
M	B29C67/02	1	Moulding by agglomerating {(B29C67/20 takes precedence)}	
M	B29C67/04	2	Sintering (combined with compression B29C43/00)	
M	B29C67/06	2	Coagulating	

*N = new entries where reclassification into entries is involved; C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; E= existing entries with enlarged file scope, which receive documents from C or D entries, e.g. when a limiting reference is removed from the entry title; M = entries with no change to the file scope (no reclassification); D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed; U = entries that are unchanged.

NOTES:

- **No {curly brackets} are used for titles in CPC only subclasses, e.g. C12Y, A23Y; 2000 series symbol titles of groups found at the end of schemes (orthogonal codes); or the Y section titles. The {curly brackets} are used for 2000 series symbol titles found interspersed throughout the main trunk schemes (breakdown codes).
- For U groups, the minimum requirement is to include the U group located immediately prior to the N group or N group array, in order to show the N group hierarchy and improve the readability and understanding of the scheme. Always include the symbol, indent level and title of the U group in the table above.
- All entry types should be included in the scheme changes table above for better understanding of the overall scheme change picture. Symbol, indent level, and title are required for all types except "D" which requires only a symbol.
- #“Transferred to” column must be completed for all C, D, F, and Q type entries. F groups will be deleted once reclassification is completed.
- When multiple symbols are included in the “Transferred to” column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used: “< administrative transfer to XX>” or “<administrative transfer to XX and YY simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be “invention information”, unless otherwise indicated, and to 2000 series groups is assumed to be “additional information”.

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

B. New, Modified or Deleted Warning notice(s)**SUBCLASS B29C- SHAPING OR JOINING OF PLASTICS; SHAPING OF SUBSTANCES IN A PLASTIC STATE, IN GENERAL; AFTER-TREATMENT OF THE SHAPED PRODUCTS, e.g. REPAIRING**

<u>Type*</u>	<u>Location</u>	<u>Old Warning notice</u>	<u>New/Modified Warning notice</u>
D	B29C	Warning The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups: B29C64/00- B29C64/40 covered by.	Delete
N	B29C64/00		Group B29C64/00 is impacted by reclassification into groups B29C64/10 - B29C64/379. All groups listed in this Warning should be considered in order to perform a complete search.
N	B29C64/10		Group B29C64/10 is incomplete pending reclassification of documents from group B29C64/00. Groups B29C64/10 and B29C64/00 should be considered in order to perform a complete search.
N	B29C64/106		Group B29C64/106 is impacted by reclassification into group B29C64/118. Groups B29C64/106 and B29C64/118 should be considered in order to perform a complete search.
N	B29C 64/118		Group B29C 64/118 is incomplete pending reclassification of documents from group B29C 64/106. Groups B29C 64/106 and B29C 64/118 should be considered in order to perform a complete search.
N	B29C64/141		Group B29C64/141 is impacted by reclassification into group B29C64/147. Groups B29C64/141 and B29C64/147 should be considered in order to perform a complete search.
N	B29C64/147		Group B29C 64/147 is incomplete pending reclassification of documents from group B29C 64/141. Groups B29C 64/141 and B29C 64/147 should be considered in order to perform a complete search.

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

<u>Type*</u>	<u>Location</u>	<u>Old Warning notice</u>	<u>New/Modified Warning notice</u>
N	B29C64/159		Group B29C64/159 is incomplete pending reclassification of documents from group B29C64/00. Groups B29C64/00 and B29C64/159 should be considered in order to perform a complete search.
N	B29C64/171		Groups B29C64/171 – B29C64/182 are incomplete pending reclassification of documents from group B29C64/00. Groups B29C64/00 and B29C64/171 – B29C64/182 should be considered in order to perform a complete search.
N	B29C64/188		Groups B29C64/188 and B29C64/194 are incomplete pending reclassification of documents from group B29C64/00. Groups B29C64/00, B29C64/188 and B29C64/194 should be considered in order to perform a complete search.
N	B29C64/20		Group B29C64/20 is impacted by reclassification into groups B29C64/205- B29C64/379. All groups listed in this Warning should be considered in order to perform a complete search.
N	B29C64/205		Groups B29C64/205-B29C64/223 are incomplete pending reclassification of documents from group B29C64/20. Groups B29C64/20 and B29C64/205 – B29C64/223 should be considered in order to perform a complete search.
N	B29C64/227		Groups B29C64/227 – B29C64/241 are incomplete pending reclassification of documents from group B29C64/20. Groups B29C64/20 and B29C64/227 – B29C64/241 should be considered in order to perform a complete search.
N	B29C64/245		Group B29C64/245 is incomplete pending reclassification of documents from group B29C64/20. Groups B29C64/20 and B29C64/245 should be considered in order to perform a complete search.
N	B29C64/25		Group B29C64/25 is incomplete pending reclassification of documents from group B29C64/20. Groups B29C64/20 and B29C64/25 should be considered in order to perform a complete search.

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

<u>Type*</u>	<u>Location</u>	<u>Old Warning notice</u>	<u>New/Modified Warning notice</u>
N	B29C64/255		Groups B29C64/255 and B29C64/259 are incomplete pending reclassification of documents from group B29C64/20. Groups B29C64/20, B29C64/255 and B29C64/259 should be considered in order to perform a complete search.
N	B29C64/264		Groups B29C64/264 – B29C64/291 are incomplete pending reclassification of documents from group B29C64/20. Groups B29C64/20 and B29C64/264 – B29C64/291 should be considered in order to perform a complete search.
N	B29C64/295		Group B29C64/295 is incomplete pending reclassification of documents from group B29C64/20. Groups B29C64/20 and B29C64/295 should be considered in order to perform a complete search.
N	B29C64/30		Groups B29C64/30 – B29C64/343 are incomplete pending reclassification of documents from groups B29C64/00 and B29C64/20. All groups listed in this Warning should be considered in order to perform a complete search.
N	B29C64/35		Group B29C64/35 is impacted by reclassification into group B29C64/357. Groups B29C64/35 and B29C64/357 should be considered in order to perform a complete search.
N	B29C64/357		Group B29C64/357 is incomplete pending reclassification of documents from group B29C64/35. Groups B29C64/20 and B29C64/357 should be considered in order to perform a complete search.
N	B29C64/364		Groups B29C64/364 and B29C64/371 are incomplete pending reclassification of documents from groups B29C64/00 and B29C64/20. All groups listed in this Warning should be considered in order to perform a complete search.
N	B29C64/379		Group B29C64/379 is incomplete pending reclassification of documents from groups B29C64/00 and B29C64/20. Groups B29C64/00, B29C64/20, and B29C64/379 should be considered in order to perform a complete search.

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

<u>Type*</u>	<u>Location</u>	<u>Old Warning notice</u>	<u>New/Modified Warning notice</u>
N	B29C64/386		Group B29C64/386 is impacted by reclassification into group B29C64/393. Groups B29C64/386 and B29C64/393 should be considered in order to perform a complete search.
N	B29C64/393		Group B29C64/393 is incomplete pending reclassification of documents from group B29C64/386. Groups B29C64/386 and B29C64/393 should be considered in order to perform a complete search.

*N = new warning, M = modified warning, D = deleted warning

NOTE: The "Location" column only requires the symbol PRIOR to the location of the warning. No further directions such as "before" or "after" are required.

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

C. New, Modified or Deleted Note(s)

SUBCLASS B29C- SHAPING OR JOINING OF PLASTICS; SHAPING OF SUBSTANCES IN A PLASTIC STATE, IN GENERAL; AFTER-TREATMENT OF THE SHAPED PRODUCTS, e.g. REPAIRING

<u>Type*</u>	<u>Location</u>	<u>Old Note</u>	<u>New/Modified Note</u>
D	B29C67/0051	Material and product properties are classified with the relevant indexing codes	Delete
M	G03F7/70416	Apparatus for photolithographical production of three dimensional images are further classified in group G03F7/0037 and group B29C67/0051	{ Apparatus for photolithographical production of three dimensional images are further classified in group G03F7/0037 and group B29C64/00 }

*N = new note, M = modified note, D = deleted note

NOTE: The "Location" column only requires the symbol PRIOR to the location of the note. No further directions such as "before" or "after" are required.

DATE: AUGUST 1, 2017

PROJECT RP0402

2. A. DEFINITIONS (New)

B29C64/00

Definition statement

This place covers:

Technologies involving the use or application of processes or apparatus that produce three-dimensionally shaped structures by selectively depositing successive layers of material one upon another. In particular it covers processes, apparatus and other aspects of additive manufacturing, i.e., making, repairing, or modifying articles of manufacture by the selective application of multiple layers of material. The applied layers may be applied directly, as in a printing process, or by selective solidification of material onto a substrate or previously developed layers, for example, by selective sintering of a particulate.

Relationships with other classification places

This group **B29C64/00** covers additive manufacturing of plastics or materials in a plastic state, not otherwise provided for.

The subclass **B33Y** covers additive manufacturing, irrespective of the process or material used. Furthermore, the subclass **B33Y** is for obligatory supplementary classification of subject matter containing an aspect of additive manufacturing already classified as such in other classification places.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Preparation of food or foodstuffs	A23L5/00
Preparation of cocoa products	A23G
Making of dental prostheses	A61C13/00
Coating apparatus, in general	B05C
Coating processes, in general	B05D
Manufacture of workpieces or articles from metallic powder characterised by the manner of compacting or sintering	B22F3/00
Milling, in general	B23C

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

Build-up welding	B23K9/04, B23K26/342
Producing shaped articles from ceramic or cementitious material	B28B1/00
Shaping by coating a mould, core or other substrate, i.e. by depositing material and stripping-off the shaped article	B29C41/00
Moulding by agglomeration	B29C67/02
Methods or apparatus for laminating, e.g. by curing or by ultrasonic bonding	B32B37/00
Forme preparation	B41C1/00
Typewriters or selective printers	B41J2/00
Superimposing layers to produce ornamental structures	B44C3/02
Braille printing	B41M3/16
Sintering of ceramic materials	C04B35/64
Culture of undifferentiated human, animal or plant cells	C12N5/00
Coating by vacuum evaporation, by sputtering or by ion implantation of the coating forming material	C23C14/00
Photosensitive materials	G03C, G03F7/004
Photomechanical production of patterned surfaces	G03F7/00
Electrographic processes using a charge pattern	G03G13/00
Manufacture of semiconductor or otherwise not provided for electric solid state devices	H01L21/00
Programme-control systems for surface or curve machining, making 3D objects, e.g. desktop manufacturing	G05B19/4099
General purpose image data processing	G06T1/00
Image enhancement for 2D or 3D images	G06T5/00
Image analysis for 2D or 3D images	G06T7/00
Image coding, e.g. from bit-mapped to non bit-mapped	G06T9/00
3D [Three-dimensional] image rendering	G06T15/00
3D [Three-dimensional] modelling, e.g. data description of 3D objects	G06T17/00
Manipulating 3D models or images for computer graphics	G06T19/00
Geography, e.g. relief models	G09B25/06
Electron-beam or ion-beam tubes for localised application of thin layers on objects	H01J37/317
Manufacturing printed circuits by printing of conductive patterns	H05K3/12

DATE: AUGUST 1, 2017

PROJECT RP0402

Glossary of terms

In this subclass, the following terms or expressions are used with the meaning indicated:

3D printing	Additive manufacturing where the buildup of successive layers of material includes the use of a printer-like device having a motor controlled head for dispensing materials that form the layers.
Stereolithography	Additive manufacturing technique where the successive layers of material are formed by selectively hardening regions of polymeric material successively applied to the structure, typically by the use of laser light.

Synonyms and Keywords

In patent documents the following abbreviations are often used:

SLS	Selective laser sintering
DTM	Desktop manufacturing
LOM	Laminated Object Modelling
3DP, 3D-printing	Three-dimensional printing
SFF	Solid Freeform Fabrication
FDM	Fused Deposition Modelling
3DD	Three-dimensional deposition
SDM	Selective Deposition Modelling
LDM	Layered deposition modelling
3DM	Three-dimensional modelling
BPM	Ballistic Particle Modelling

DATE: AUGUST 1, 2017

PROJECT RP0402

B29C64/10

Relationship with other classification places

Additive manufacturing should obligatorily be further be classified in subclass [B33Y](#) irrespective of the process or material used.

B29C64/20

Definition statement

This place covers:

- Machines and systems for carrying out additive manufacturing methods to produce objects
- Subcombinations of machines that carry out additive manufacturing methods to produce objects
- Accessories for machines that carry out additive manufacturing methods. Accessories include things attachable to or used in conjunction with an additive manufacturing machine that have a direct association with the additive manufacturing machine, per se.

Relationships with other classification places

Auxiliary operations or equipment, e.g. for treating or handling the raw materials for additively manufacturing objects, are classified in [B29C64/30](#).

Additive manufacturing should obligatorily be further be classified in subclass [B33Y](#) irrespective of the process or material used.

DATE: AUGUST 1, 2017

PROJECT RP0402

B29C64/30

Definition statement

This place covers:

The handling or treating of materials used in an additive manufacturing process, or the subsequent treating or handling of objects produced by an additive manufacturing process. Also covered are ancillary components or process steps not directly involving the additive manufacturing process or apparatus, per se, such as cleaning raw materials used in the additive manufacturing process, or recycling residual material from the manufacturing process.

Relationship with other classification places

Additive manufacturing should obligatorily be further be classified in subclass **B33Y** irrespective of the process or material used.

B29C64/386

Definition statement

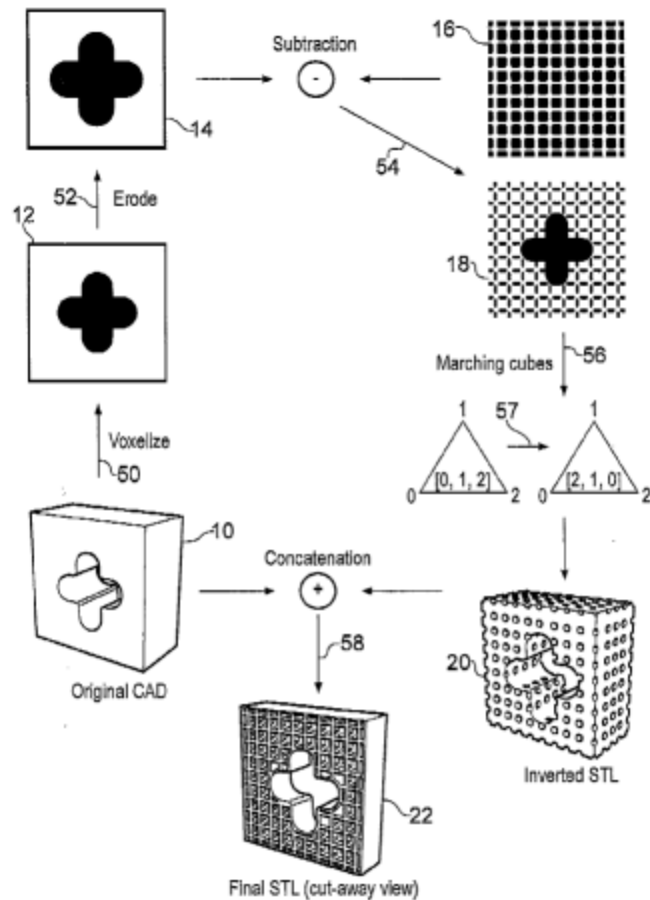
This place covers:

- Data processing aspects related to an object to be manufactured in an additive manufacturing process, specially adapted for processing of plastics or materials in a plastic state, not otherwise provided for, for example, combining together data from different sources to produce composite production data for said object to be made.
- Acquiring, sending, or receiving data that will be used in additive manufacturing, either internal or external to the additive manufacturing apparatus, specially adapted for processing of plastics or materials in a plastic state, not otherwise provided for.

Illustrative example of subject matter classified in this group:

DATE: AUGUST 1, 2017

PROJECT RP0402



Relationship with other classification places

Additive manufacturing should obligatorily be further be classified in subclass [B33Y](#) irrespective of the process or material used.

B29C64/393

Definition statement

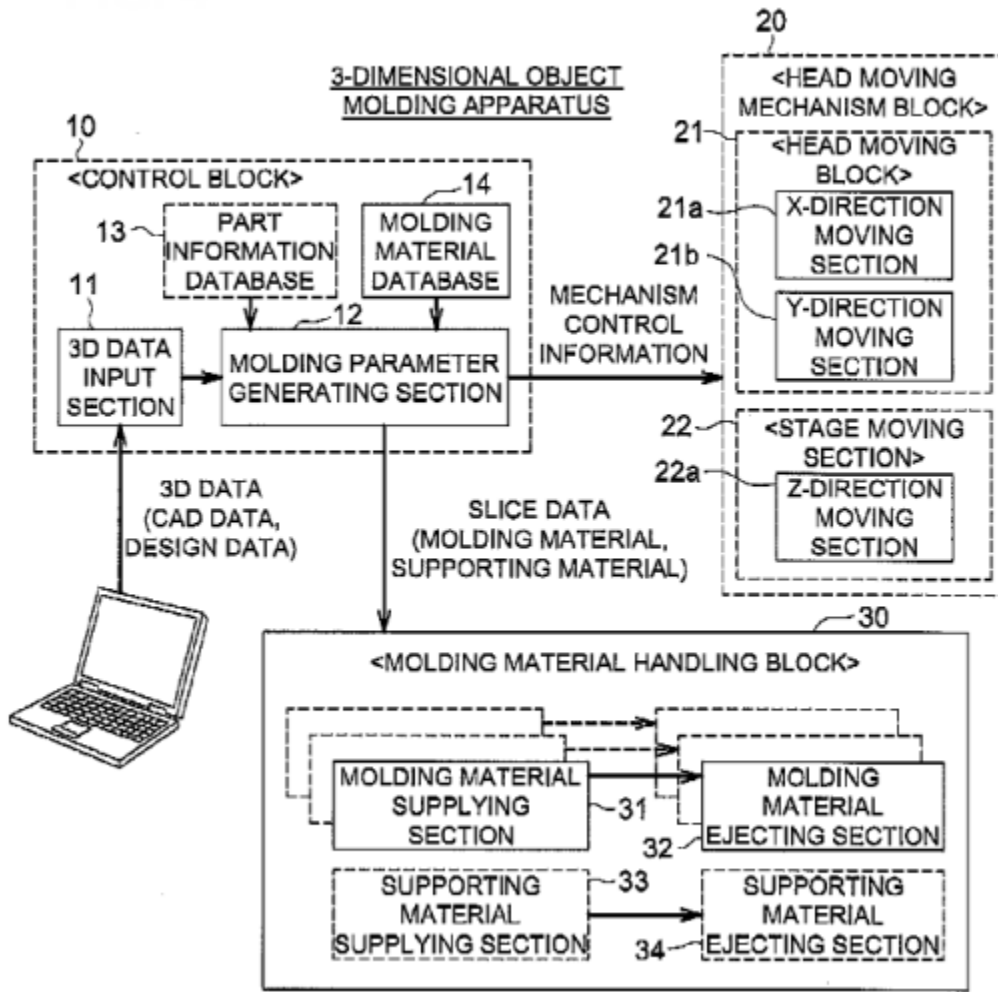
This place covers:

Data processing specially adapted for managing the additive manufacturing process performed by one or more additive manufacturing apparatuses, specially adapted for processing of plastics or materials in a plastic state, not otherwise provided for.

Illustrative example of subject matter classified in this group:

DATE: AUGUST 1, 2017

PROJECT RP0402



Relationship with other classification places

Additive manufacturing should obligatorily be further be classified in subclass [B33Y](#) irrespective of the process or material used.

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

2. B. DEFINITIONS QUICK FIX

<u>Symbol</u>	<u>Location of change</u> (e.g., section title)	<u>Existing reference symbol or text</u>	<u>Action; New symbol; New text</u>
B29C67/0051	Definition		Delete the entire definition
B29C67/0055	symbol		Renumber to: B29C64/106
B29C67/0062	symbol		Renumber to: B29C64/124
B29C67/0066	symbol		Renumber to: B29C64/135
B29C67/007	symbol		Renumber to: B29C64/129
B29C67/0074	symbol		Renumber to: B29C64/141
B29C67/0077	symbol		Renumber to: B29C64/153
B29C67/0081	symbol		Renumber to: B29C64/165
B29C67/0088	Definition		Delete the entire definition
B29C67/0092	symbol		Renumber to: B29C64/40
B29C67/0096	Informative references	B08B4/00	Replace the existing symbol with the following: B08B3/04
B29C67/0096	symbol		Renumber to: B29C64/35

NOTES:

- The table above is used for corrections or modifications to existing definitions, e.g. delete an entire definition or part thereof; propose new wording or modify wording of a section, change the symbol the definition is associated with, change or delete a reference symbol, etc.
- Do not delete (F) symbol definitions.

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

3. REVISION CONCORDANCE LIST (RCL)

Type*	From CPC Symbol (existing)	To CPC Symbol(s)
Q	B29C64/00	B29C64/00, B29C64/10, B29C64/159, B29C64/171, B29C64/176, B29C64/182, B29C64/188, B29C64/194, B29C64/30, B29C64/307, B29C64/314, B29C64/321, B29C64/329, B29C64/336, B29C64/343, B29C64/364, B29C64/371, B29C64/379
Q	B29C64/106	B29C64/106, B29C64/118
Q	B29C64/141	B29C64/141, B29C64/147
Q	B29C64/20	B29C64/20, B29C64/205, B29C64/209, B29C64/214, B29C64/218, B29C64/223, B29C64/227, B29C64/232, B29C64/236, B29C64/241, B29C64/245, B29C64/25, B29C64/255, B29C64/259, B29C64/264, B29C64/268, B29C64/273, B29C64/277, B29C64/282, B29C64/286, B29C64/291, B29C64/295, B29C64/30, B29C64/307, B29C64/314, B29C64/321, B29C64/329, B29C64/336, B29C64/343, B29C64/364, B29C64/371, B29C64/379
Q	B29C64/35	B29C64/35, B29C64/357
Q	B29C64/386	B29C64/386, B29C64/393
D	B29C67/0051	<Administrative transfer to B29C64/00>
D	B29C67/0055	<Administrative transfer to B29C64/106>
D	B29C67/0059	<Administrative transfer to B29C64/112>
D	B29C67/0062	<Administrative transfer to B29C64/124>
D	B29C67/0066	<Administrative transfer to B29C64/135>
D	B29C67/007	<Administrative transfer to B29C64/129>
D	B29C67/0074	<Administrative transfer to B29C64/141>
D	B29C67/0077	<Administrative transfer to B29C64/153>
D	B29C67/0081	<Administrative transfer to B29C64/165>
D	B29C67/0085	<Administrative transfer to B29C64/20>
D	B29C67/0088	<Administrative transfer to B29C64/386>
D	B29C67/0092	<Administrative transfer to B29C64/40>
D	B29C67/0096	<Administrative transfer to B29C64/35>

* C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; D = deleted entries.

NOTES:

- Only C, D, and Q type entries are included in the table above.
- When multiple symbols are included in the “To” column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used: “< administrative transfer to XX>” or “<administrative transfer to XX and YY simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be “invention information”, unless otherwise indicated, and to 2000 series groups is assumed to be “additional information”.

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

4. CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

<u>CPC</u>	<u>IPC</u>	<u>Action*</u>
B29C64/00	B29C64/00	NEW
B29C64/10	B29C64/10	NEW
B29C64/106	B29C64/106	NEW
B29C64/112	B29C64/112	NEW
B29C64/118	B29C64/118	NEW
B29C64/124	B29C64/124	NEW
B29C64/129	B29C64/129	NEW
B29C64/135	B29C64/135	NEW
B29C64/141	B29C64/141	NEW
B29C64/147	B29C64/147	NEW
B29C64/153	B29C64/153	NEW
B29C64/159	B29C64/159	NEW
B29C64/165	B29C64/165	NEW
B29C64/171	B29C64/171	NEW
B29C64/176	B29C64/176	NEW
B29C64/182	B29C64/182	NEW
B29C64/188	B29C64/188	NEW
B29C64/194	B29C64/194	NEW
B29C64/20	B29C64/20	NEW
B29C64/205	B29C64/205	NEW
B29C64/209	B29C64/209	NEW
B29C64/214	B29C64/214	NEW
B29C64/218	B29C64/218	NEW
B29C64/223	B29C64/223	NEW
B29C64/227	B29C64/227	NEW
B29C64/232	B29C64/232	NEW
B29C64/236	B29C64/236	NEW
B29C64/241	B29C64/241	NEW
B29C64/245	B29C64/245	NEW
B29C64/25	B29C64/25	NEW
B29C64/255	B29C64/255	NEW
B29C64/259	B29C64/259	NEW
B29C64/264	B29C64/264	NEW
B29C64/268	B29C64/268	NEW
B29C64/273	B29C64/273	NEW
B29C64/277	B29C64/277	NEW
B29C64/282	B29C64/282	NEW
B29C64/286	B29C64/286	NEW
B29C64/291	B29C64/291	NEW
B29C64/295	B29C64/295	NEW
B29C64/30	B29C64/30	NEW
B29C64/307	B29C64/307	NEW

CPC Form – v.4

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

<u>CPC</u>	<u>IPC</u>	<u>Action*</u>
B29C64/314	B29C64/314	NEW
B29C64/321	B29C64/321	NEW
B29C64/329	B29C64/329	NEW
B29C64/336	B29C64/336	NEW
B29C64/343	B29C64/343	NEW
B29C64/35	B29C64/35	NEW
B29C64/357	B29C64/357	NEW
B29C64/364	B29C64/364	NEW
B29C64/371	B29C64/371	NEW
B29C64/379	B29C64/379	NEW
B29C64/386	B29C64/386	NEW
B29C64/393	B29C64/393	NEW
B29C64/40	B29C64/40	NEW
B29C67/0051		DELETE
B29C67/0055		DELETE
B29C67/0059		DELETE
B29C67/0062		DELETE
B29C67/0066		DELETE
B29C67/007		DELETE
B29C67/0074		DELETE
B29C67/0077		DELETE
B29C67/0081		DELETE
B29C67/0085		DELETE
B29C67/0088		DELETE
B29C67/0092		DELETE
B29C67/0096		DELETE

*Action column:

- For an (N) or (Q) entry, provide an IPC symbol and complete the Action column with “.”
- For an existing CPC main trunk entry or indexing entry where the existing IPC symbol needs to be changed, provide an updated IPC symbol and complete the Action column with “UPDATED.”
- For a (D) CPC entry or indexing entry complete the Action column with “DELETE.” IPC symbol does not need to be included in the IPC column.
- For an (N) 2000 series CPC entry which is positioned within the main trunk scheme (breakdown code) provide an IPC symbol and complete the action column with “”.
- For an (N) 2000 series CPC entry positioned at the end of the CPC scheme (orthogonal code), with no IPC equivalent, complete the IPC column with “CPCONLY” and complete the action column with “”.

NOTES:

- F symbols are not included in the CICL table above.
- E and M symbols are not included in the CICL table above unless a change to the existing IPC is desired.

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

5. CROSS-REFERENCE LIST (CRL)

Scheme references impacted by this revision project

<u>Location of reference to be changed</u>	<u>Referenced subclass or group to be changed</u>	<u>Action; New reference symbol; New text</u>
B22F3/1055	B29C67/0077	B29C64/153
B28B1/001	B29C67/0051	B29C64/00
B29C35/08	B29C67/0051	B29C64/00
B41J 3/4073	B29C67/0059	B29C64/112

Definitions references impacted by this revision project

<u>Location of reference to be changed</u>	<u>Referenced subclass or group to be changed</u>	<u>Section of definition</u>	<u>Action; New reference symbol; New text</u>
B22F3/105	B29C67/0051	Limiting references	B29C64/00
B23K26/00	B29C 67/0051	Limiting references	B29C 64/00
B28B7/465	B29C67/0081	Informative references	B29C64/165
B29B13/007	B29C67/0077	Limiting references	B29C64/153
B33Y	B29C67/0051	Informative references	B29C64/00
B41J	B29C67/0059	Limiting references	B29C64/112
B41J3/4073		Limiting references	Insert the following new row into the Limiting references table: Building up a 3D object using individual droplets from jetting heads B29C64/112
B41J3/4073		Informative references	Delete
B41M3/00	B29C 67/0051	Limiting references	B29C 64/00
C04B2235/6026	B29C67/0051, B29C67/0051 and subgroups	Informative references	B29C64/00
C04B2235/665	B29C67/0077, B29C67/0077	Informative references	B29C64/00
H01J37/3174	B29C67/0051	Informative references	B29C64/00

CPC NOTICE OF CHANGES 362

DATE: AUGUST 1, 2017

PROJECT RP0402

NOTES:

- The CRL tables above are used for changes to locations **outside** of the project scope. Changes to references in scheme titles or definitions **inside** the project scope will be reflected in the “scheme change” template or one of the “definition” templates.
- In addition to other changes proposed in the tables above, in the column titled “Referenced subclass or group to be changed,” **referenced** D symbols should indicate an action of “delete” or should indicate a replacement symbol and **referenced** F symbols should indicate a replacement symbol.
- When a reference is deleted, text related to that reference will also be deleted unless other references or a range of references associated with the same text remain.