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■ Best.-Nr. 534e

Industry-wide Agreement of low-dust spray powders - List of appropriate products

Industry-wide Agreement

The suppliers of spray powders, manufacturers of sheetfed offset printing presses and powder devices, the Bundesverband Druck und Medien e. V. (German Printing and Media Industries Federation), the Vereinte Dienstleistungsgewerkschaft ver.di e. V. (Union for printers and people in the graphics industry in Germany) the FOGRA Forschungsgesellschaft Druck e. V. (Graphic Technology Research Association) and the BG ETEM Fachgebiet Druck und Papierverarbeitung have agreed to work together towards the joint objective of reducing dust exposure at sheetfed offset printing workplaces.

As a consequence, suppliers of spray powders will mainly develop and supply powders that comply with the criteria described below. Pushing the use of such powders in the offset printing industry will be a common goal.

Criteria for classification of spray powders

The industry-wide agreement seeks to establish powder descriptions which are objective and reproducible and allow comparisons. For this purpose, print spray powders have been classified.

In order to classify spray powders, the measuring method for the determination of the grain size distribution and the median (mean value of grain size distribution) has to be defined.

In future, spray powders will be classified as "fine", "medium" or "coarse". The following limit values will apply:

Class	Median range MW [μm]
fine	$MW \leq 20 \mu\text{m}$
medium	$20 \mu\text{m} < MW \leq 40 \mu\text{m}$
Coarse	$40 \mu\text{m} < MW$

The maximum admissible proportions of grain sizes below $10 \mu\text{m}$ per class are defined as follows:

Class	Admissible proportions $< 10 \mu\text{m}$ [Vol.-%]
Fine	10,0 +0,5
Medium	7,5 +0,5
Coarse	5,0 +0,5

It is also required that at least 80 (-5) Vol.-% of the total number of particles of the powder are within the grain size range of "0,5 times the median" up to "1,5 times the median" .

Spray powders are not allowed to contain hazardous substances or other substances with non-acceptable health risks.

Basic principle

The manufacturer / supplier of spray powders supplies evidence to the BG ETEM Fachgebiet Druck und Papierverarbeitung that the above-mentioned criteria have been applied. For this purpose, he will have his product(s) analysed by an independent institute (for example FSA GmbH, Dynamostr. 7 – 11, D-68165 Mannheim/Germany), applying the grain size distribution method described above. If these criteria have been complied with, the product will included in the list (see annex).

Compliance with the criteria will have to be substantiated to the BG at yearly intervals (in accordance with the reprint date of the list) by submitting results of a renewed analysis.

The BG reserves the right to take samples from original packing units in printing shops and to verify them for adherence to the criteria.

Annotation:

Product specifications supplied by manufacturers / suppliers

Suppliers of print spray powders provide specification of the median and the proportion by volume of powder particles below 10 µm from the total sample volume on the packing unit and in their product information. Product specification will also inform about the recommended use of powders for certain paper qualities. Basically, the powders recommended should have grain sizes as coarse as possible.

For products accepted in the list of low-dust powders, the suppliers are entitled to provide the following information in the product specification and on the packaging unit:

"This product complies with the requirements for low-dust print spray powders and has been included in the "List of Recommended Low-Dust Spray Powders" of the BG ETEM Fachgebiet Druck und Papierverarbeitung".

For further information please contact

Berufsgenossenschaft ETEM
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Annex

Explanatory notes for the List of appropriate products

The BG ETEM Fachgebiet Druck und Papierverarbeitung publishes a list of recommended low-dust products for better health protection. It names the products for which verification of compliance with the criteria mentioned has been acknowledged and will be updated in regular intervals. The list includes the products from various suppliers which comply with the criteria stipulated. It is not exhaustive with regard to the manufacturers / suppliers of printing spraying powders.

- Column "Product Class" **specifies classification of the product into "fine", "medium" or "coarse"**.
- Column "Product Name" **specifies the exact trade name of the spray powder**.
- Column "Material" **specifies the basic raw material from which the printing spraying powder is made, for example "starch" (maize or potato starch) or "calcium carbonate"**.
- Column "Median" **specifies the exact median (mean value of grain size distribution)**.
- Column "Proportion < 10 µm [Vol.-%]" **specifies the percentage by volume of the total number of particles of the powder with grain sizes below 10 µm**.
- Column "Machines" **describes machines and equipment on which the product can be used. Manufacturer names in this column indicate that the product is compatible with all machines and equipment produced by this manufacturer as well as with the materials used. The acronyms signify:**

GRAF:	Grafix GmbH – Zerstäubungstechnik
HDM:	Heidelberger Druckmaschinen AG
KBA:	Koenig & Bauer AG Planeta – Bogenoffsetmaschinen
MAN:	manroland AG
WEKO :	Weitmann & Konrad GmbH & Co. KG – Bestäubungstechnik
G-H-K-M-W:	stands for all manufacturers listed above

List of appropriate Products

Manufacturer /Supplier:
FELIX BÖTTCHER GmbH & Co. KG

Stolberger Str. 351-353

50933 KÖLN

GERMANY

Tel.: +49 (0) 221 4907-1

Fax: +49 (0) 221 4907-435

 E-Mail: chem@boettcher-systems.com
www.boettcher-systems.com

Product Class	Product Name	Material	Median [µm]	Proportion < 10 µm [Vol%]	Machines
fine	BöttcherPro Silux 20	starch	19,9	8,7	G-H-K-M-W
medium	BöttcherPro Silux 35	starch	23,3	5,2	G-H-K-M-W

Manufacturer /Supplier:
DAY International GmbH

Täleswiesenstr. 7/1

72770 REUTLINGEN

GERMANY

Fon: +49 (0) 7121 5857-0

Fax: +49 (0) 7121 5857-70

 E-Mail: day.germany@flintgrp.com
www.day-intl.com

Product Class	Product Name	Material	Median [µm]	Proportion < 10 µm [Vol%]	Machines
fine	Varn CC 20	starch	19,7	6,3	G-H-K-M-W
medium	Varn CC 30	starch	23,0	6,1	G-H-K-M-W

Manufacturer /Supplier:
DC DruckChemie GmbH

Wiesenstr. 10

72119 AMMERBUCH

Germany

Tel.: +49 (0) 7032 9765-10

Fax: +49 (0) 7032 9765-24

 E-Mail: dc-ammerbuch@druckchemie.com
www.druckchemie.com

Product Class	Product Name	Material	Median [µm]	Proportion < 10 µm [Vol%]	Machines
medium	Eurosil Typ Ideal	starch	23,3	3,1	G-H-K-M-W

Manufacturer/Supplier:**Fujifilm Europe NV**

Europark-Noord 21-22

9100 SINT-NIKLAAS

BELGIEN

Tel.: +32 (0) 376 002 00

Fax: +32 (0) 376 639 92

E-Mail: Graphicarts_feb@fujifilm.eu

www.fujifilm.eu/feb

Anchor

Product Class	Product Name	Material	Median [µm]	Proportion < 10 µm [Vol%]	Machines
medium	ECOSpray Powder Fine	starch	20,8	6,0	G-H-K-M-W
medium	ECOSpray Powder Medium	starch	33,8	1,9	G-H-K-M-W
coarse	ECOSpray Powder Coarse	starch	41,8	2,4	G-H-K-M-W

DS

Product Class	Product name	Material	Median [µm]	Proportion < 10 µm [Vol%]	Machines
medium	Powder 4020 B-ECOSpray	starch	20,8	6,0	G-H-K-M-W
medium	Powder 4030 B-ECOSpray	starch	33,8	1,9	G-H-K-M-W
coarse	Powder 4050 B-ECOSpray	starch	41,8	2,4	G-H-K-M-W

PRESSMAX

Product Class	Product name	Material	Median [µm]	Proportion < 10 µm [Vol%]	Machines
medium	SprayMax CTX 20	starch	20,8	6,0	G-H-K-M-W
medium	SprayMax CTX 30	starch	33,8	1,9	G-H-K-M-W
coarse	SprayMax CTX 50	starch	41,8	2,4	G-H-K-M-W

Solco

Product Class	Product name	Material	Median [µm]	Proportion < 10 µm [Vol%]	Machines
medium	ASOP C20 ECOSpray	starch	20,8	6,0	G-H-K-M-W
medium	ASOP C40 ECOSpray	starch	33,8	1,9	G-H-K-M-W
coarse	ASOP C60 ECOSpray	starch	41,8	2,4	G-H-K-M-W

Manufacturer /Supplier:**KSL Staubtechnik GmbH**

Westendstr. 11

89415 LAUINGEN

GERMANY

Fon: +49 (0) 9072 9500-0

Fax: +49 (0) 9072 9500-50

E-Mail: info@ksl-staubtechnik.de

www.ksl-staubtechnik.de

Product Class	Product Name	Material	Median [µm]	Proportion < 10 µm [Vol%]	Machines
fine	K4/15	Calcium carbonate	19,3	5,2	G-H-K-M-W
fine	K4 plus/15	Calcium carbonate	18,6	4,7	G-H-K-M-W
fine	S5/16	starch	16,9	5,5	G-H-K-M-W
fine	S5/20	starch	19,3	5,9	G-H-K-M-W
fine	S5WL/16	starch	16,9	6,7	G-H-K-M-W
medium	K4/20	Calcium carbonate	21,9	3,8	G-H-K-M-W
medium	K4/30	Calcium carbonate	32,1	3,1	G-H-K-M-W
medium	K4 plus/20	Calcium carbonate	22,5	3,7	G-H-K-M-W
medium	K4 plus/30	Calcium carbonate	32,8	2,8	G-H-K-M-W
medium	S5/22	starch	22,6	2,7	G-H-K-M-W
medium	S5 WL/22	starch	23,1	3,5	G-H-K-M-W
medium	S5WL/20	starch	20,9	4,0	G-H-K-M-W
medium	S5 WL/30	starch	38,9	1,4	G-H-K-M-W
coarse	K4/45	Calcium carbonate	43,0	2,1	G-H-K-M-W
coarse	K4/60	Calcium carbonate	61,7	0,7	G-H-K-M-W
coarse	K4/80	Calcium carbonate	88,4	0,9	G-H-K-M-W
coarse	K4 plus/45	Calcium carbonate	42,2	3,0	G-H-K-M-W
coarse	S5/30	starch	41,5	1,1	
coarse	S5/45	starch	60,5	0,7	G-H-K-M-W
coarse	S5 WL/45	starch	57,9	0,9	G-H-K-M-W

Manufacturer /Supplier:**RUSSELL-WEBB LIMITED**

Fountain Drive

HERTS SG13 7UB

United Kingdom

Fon: +44 (0) 1992 551774

Fax: +44 (0) 1992 554178

E-Mail: info@russell-webb.com

www.russell-webb.com

Product Class	Product Name	Material	Median [µm]	Proportion < 10 µm [Vol%]	Machines
fine	S88-15	starch	18,9	7,4	G-H-K-M-W
medium	S88-20 R	starch	20,8	6,0	G-H-K-M-W
medium	S88-35 R	starch	33,8	1,9	G-H-K-M-W
coarse	S88-35	starch	38,9	3,7	G-H-K-M-W
coarse	S88-50 R	starch	41,8	2,4	G-H-K-M-W

Manufacturer /Supplier:
Bernd Schwegmann GmbH & Co. KG
 Wernher-von-Braun-Str. 14
 53501 GRAFSCHAFT-GESLDORF
 GERMANY
 Fon: +49 (0) 2225 9226-0
 E-Mail: info@SchwegmannNet.de
 www.SchwegmannNet.de

Product Class	Product Name	Material	Median [µm]	Proportion < 10 µm [Vol%]	Machines
fine	Wirbelwind 8161	starch	19,2	9,8	G-H-K-M-W

Manufacturer /Supplier:
VEGRA GmbH
 Otto-Hahn-Str. 1
 84544 ASCHAU A. INN
 GERMANY
 Fon: +49 (0) 8638 8678-0
 E-Mail: info@vegra.de
 www.vegra.com

Product Class	Product Name	Material	Median [µm]	Proportion < 10 µm [Vol%]	Machines
fine	VEGRASIL M 21	starch	19,8	9,0	G-H-K-M-W

Manufacturer /Supplier:
Heidelberger Druckmaschinen AG
 Kurfürstenanlage 52-60
 69115 Heidelberg
 Tel: +49 6221 92 00
 Fax: +49 6221 92 6999
 www.heidelberg.com

Product Class	Product Name	Material	Median [µm]	Proportion < 10 µm [Vol%]	Machines
medium	Saphira Powder Pro 100-20	starch	20,8	6,0	G-H-K-M-W
coarse	Saphira Powder Pro 100-35	starch	38,9	3,7	G-H-K-M-W