BG-INFOBLATT



■ Stand: 03/2007 ■ 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 Berufsgenossenschaft Druck und Papierverarbeitung (BG, Institution for statutory accident insurance and prevention in the printing and paper processing industry) 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 ≤ 20 μm | | |
| medium | 20 μm < MW ≤ 40 μm | | |
| coarse | 40 μm < MW | | |

The maximum admissible proportions of grain sizes below 10 μ m per class are defined as follows:

| Class | Admissible proportions $< 10 \mu m$ [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 Berufsgenossenschaft 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.

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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 μ m 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 Berufsgenossenschaft Druck und Papierverarbeitung".

For further information please contact

Berufsgenossenschaft Druck und Papierverarbeitung Referat Arbeitsstoffe Rheinstrasse 6 – 8 D – 65185 Wiesbaden Germany

Mail: chemie@bgdp.de / Homepage: www.bgdp.de

Annex

Explanatory notes for the List of appropriate products

The Berufsgenossenschaft 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 μ m [Vol.-%]" specifies the percentage by volume of the total number of particles of the powder with grain sizes below 10 μ m.
- 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:

HDM: Heidelberger Druckmaschinen AG

KBA: Koenig & Bauer AG Planeta – Bogenoffsetmaschinen

MAN: MAN Roland Druckmaschinen AG
GRAF: Grafix GmbH – Zerstäubungstechnik

WEKO: Weitmann & Konrad GmbH & Co. KG - Bestäubungstechnik

H-K-M-W-G: stands for all manufacturers listed above

List of appropriate Products

Hersteller /Lieferant:

Anchor

Zwaluwbeekstraat 14 B – 9150 Kruibeke

Belgium

Fon: +32 (0) 3 253 02 08 Fax: +32 (0) 3 253 09 37 E-Mail: info@anchor.be www.anchor.be

| Product Class | Product Name | Material | Median [µm] | Proportion < 10 μm [Vol%] | Machines |
|------------------|---------------------------|----------|----------------|---------------------------|-----------|
| Medium | Ecospray Powder Medium | starch | 39,0 | 1,6 | H-K-M-W-G |
| | | | | | |
| coarse | Ecospray Powder coarse | starch | 42,6 | 1,3 | H-K-M-W-G |

Manufacturer /Supplier: DAY International GmbH

Täleswiesenstr. 7/1 D - 72770 Reutlingen

Germany

Fon: +49 (0) 7121 5857-0 Fax: +49 (0) 7121 5857-70 E-Mail: salesuk@varn.com www.day-intl.com

| Product Class | Product Name | Material | Median [µm] | Proportion < 10 μm [Vol%] | Machines |
|------------------|--------------|----------|----------------|---------------------------|-----------|
| fine | Varn CC 20 | starch | 18,5 | 10,0 | H-K-M-W-G |
| | | | | | |
| medium | Varn CC 30 | starch | 24,6 | 5,8 | H-K-M-W-G |

Manufacturer upplier:

DS Druckerei Service GmbH

Siemensstr. 46 D - 72766 Reutlingen

Germany

Fon: +49 (0) 7121 4815-0 Fax: +49 (0) 7121 48 1590

E-Mail: reutlingenoffice@fujihunt.com

www.dsgroup.de

| Product Class | Product Name | Material | Median [µm] | Proportion < 10 μm [Vol%] | Machines |
|------------------|--------------------------------|----------|----------------|---------------------------|-----------|
| medium | Safe Spray SP 7022 Ecospray | starch | 39,0 | 1,6 | H-K-M-W-G |
| coarse | Safe Spray SP 7033 Ecospray | starch | 42,6 | 1,3 | H-K-M-W-G |

Hersteller /Lieferant:

Fuji Hunt Pressroom Chemicals

Zwaluwbeekstraat 14 B – 9150 Kruibeke

Belgium

Fon: +32 (0) 3 253 02 08 Fax: +32 (0) 3 253 09 37

E-Mail: press.marketing@fujihunt.com

www.fujihunt.com/press

| Product Class | Product Name | Material | Median [μm] | Proportion < 10 μm [Vol%] | Machines |
|------------------|--------------------------------|----------|----------------|---------------------------|-----------|
| medium | Safe Spray SP 7022 Ecospray | starch | 39,0 | 1,6 | H-K-M-W-G |
| | | | | | |
| coarse | Safe Spray SP 7033 Ecospray | starch | 42,6 | 1,3 | H-K-M-W-G |

Manufacturer /Supplier: KSL Staubtechnik GmbH

Westendstr. 11 D - 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 | 19,4 | 7,0 | H-K-M-W-G |
| fine | K4 plus/15 | Calcium carbonate | 18,9 | 5,9 | H-K-M-W-G |
| fine | S5/16 | starch | 16,8 | 5,9 | H-K-M-W-G |
| fine | S5/20 | starch | 19,5 | 4,6 | H-K-M-W-G |
| fine | S5WL/16 | starch | 17,4 | 6,0 | H-K-M-W-G |
| fine | S5WL/20 | starch | 19,5 | 5,1 | H-K-M-W-G |
| medium | K4/20 | Calcium carbonate | 21,9 | 4,7 | H-K-M-W-G |
| medium | K4/30 | Calcium carbonate | 30,6 | 3,7 | H-K-M-W-G |
| medium | K4 plus/20 | Calcium carbonate | 22,0 | 4,5 | H-K-M-W-G |
| medium | K4 plus/30 | Calcium carbonate | 32,0 | 3,4 | H-K-M-W-G |
| medium | S5/22 | starch | 22,6 | 2,6 | H-K-M-W-G |
| medium | S5/30 | starch | 38,1 | 1,3 | H-K-M-W-G |
| medium | S5 WL/22 | starch | 22,8 | 3,0 | H-K-M-W-G |
| medium | S5 WL/30 | starch | 38,3 | 1,4 | H-K-M-W-G |
| coarse | K4/45 | Calcium carbonate | 42,5 | 2,4 | H-K-M-W-G |
| coarse | K4/60 | Calcium carbonate | 64,5 | 0,7 | H-K-M-W-G |
| coarse | K4/80 | Calcium carbonate | 82,1 | 1,0 | H-K-M-W-G |
| coarse | K4 plus/45 | Calcium carbonate | 42,4 | 2,9 | H-K-M-W-G |
| coarse | S5/45 | starch | 61,4 | 0,8 | H-K-M-W-G |
| coarse | S5 WL/45 | starch | 62,7 | 0,7 | H-K-M-W-G |

Manufacturer /Supplier: RUSSEL-WEBB LIMITED

Fountain Drive Herts SG13 7UB United Kingdom

Fon: +44 (0) 1992 551774 Fax: +44 (0) 1992 554178 E-Mail: info@russel-webb.com

www.russel-web.com

| Product- Class | Product Name | Material | Median [µm] | Proportion < 10 µm [Vol%] | Machines |
|-------------------|--------------|----------|----------------|---------------------------|-----------|
| fine | S 88-15 | starch | 17,4 | 8,8 | H-K-M-W-G |
| medium | S 88-20 | starch | 22,0 | 3,0 | H-K-M-W-G |
| medium | S 88-20 R | starch | 22,3 | 3,6 | H-K-M-W-G |
| medium | S 88-35 | starch | 39,3 | 1,9 | H-K-M-W-G |
| medium | S 88-35 R | starch | 39,0 | 1,6 | H-K-M-W-G |
| coarse | S88-50 | starch | 42,1 | 3,1 | H-K-M-W-G |
| coarse | S88-50 R | starch | 42,6 | 1,3 | H-K-M-W-G |

Hersteller /Lieferant: Solco N.V.

Zwaluwbeekstraat 14 B – 9150 Kruibeke

Belgium

Fon: +32 (0) 3 253 02 08 Fax: +32 (0) 3 253 09 37

E-Mail: press.marketing@fujihunt.com

www.solco.be

| Product Class | Product Name | Material | Median [µm] | Proportion < 10 μm [Vol%] | Machines |
|------------------|--------------------|----------|----------------|---------------------------|-----------|
| medium | ASOP C 40 Ecospray | starch | 39,0 | 1,6 | H-K-M-W-G |
| | | | | | |
| coarse | ASOP C 60 Ecospray | starch | 42,6 | 1,3 | H-K-M-W-G |

Manufacturer /Supplier: Bernd Schwegmann GmbH & Co. KG

Wernher-von-Braun-Str. 14 D - 53501 Grafschaft-Gelsdorf

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 | 19,4 | 9,2 | H-K-M-W-G |
| | | | | | |
| medium | Wirbelwind 8162 | starch | 21,2 | 4,2 | H-K-M-W-G |
| | | | | | |
| coarse | Wirbelwind 8163 | starch | 45,8 | 1,5 | H-K-M-W-G |