Series 590-Sxxx

UV Structure Varnishes, transparent
UV Structure Varnishes, colored

The Series 590-Sxxx consists of special structure varnishes with various settings from «ultrafine» to «rough» for the optical/haptic finishing of printed products and packaging materials. These effect-creating UV varnishes are used for the partial highlighting of optical valances but also full-area coating and the creation of haptic, tactile surfaces. Depending on the system and mesh used, the variation and styling possibilities are almost infinite, right up to individual surface design.

The curing energy of these UV-curing varnishes is dependent on the pigment/structure provider contained, the choice of mesh as well as the substrate to be printed and is usually 350–450 mJ/m². The curing conditions should be adapted to the substrate and the color shade. With dark substrates, higher curing energy may be required, as polymerisation and the associated adhesion formation is generally more difficult. For some color shades, the final adhesion is only achieved after 24 hours due to the post-curing process.

The available structure varnishes are listed in the table below, along with the maximum particle size and the recommended meshes. Other colors or blends with different effects are possible.

Article number	Description	Color shade	Ø Particle size (D 50)	Recommended mesh
Series 590-SUF09	Structure varnish, ultrafine	yellow	10 µm	150.31
Series 590-SF05	Structure varnish, fine	transparent	20 µm	100.40
Series 590-SF13	Structure varnish, fine	orange	20 µm	100.40
Series 590-SSF05	Structure varnish, semifine	transparent	35 µm	54.64
Series 590-SSF18	Structure varnish, semifine	red	35 µm	54.64
Series 590-SM05	Structure varnish, medium	transparent	50 µm	43.80
Series 590-SM27	Structure varnish, medium	blue	50 µm	43.80
Series 590-SC05	Structure varnish, coarse	transparent	80 µm	32.100
Series 590-SC30	Structure varnish, coarse	green	80 µm	32.100
Series 590-SR05	Structure varnish, rough	transparent	110 µm	21.140
Series 590-SR33	Structure varnish, rough	black	110 µm	21.140

Also available is a universal effect binder, which can be mixed with the appropriate structuring agents to vary the structure (see table below).

Article number	Description	Color shade	Ø Particle size (D 50)	Recommended addition ratio
Series 590-07	Effect binder universal	transparent	-	-
Series 10-03885	Structure particle, ultrafine	transparent	10 µm	up to 20 %
Series 10-05804	Structure particle, fine	transparent	20 µm	up to 20 %
Series 10-05667	Structure particle, semifine	transparent	35 µm	up to 20 %
Series 10-05668	Structure particle, medium	transparent	50 µm	up to 20 %
Series 10-05718	Structure particle, coarse	transparent	80 µm	up to 20 %
Series 10-05669	Structure particle, rough	transparent	110 µm	up to 20 %

Specifications

Thinner	Series 500-017
Addition ratio	Up to 10 % (if necessary)
Retarder	-
Addition ratio	-
Cleaner	Series 500-URS
Mesh	Depending on the desired effect (see table)

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Curing	350–450 mJ/cm² (Technigraf Integrator on transparent film)
Substrates	Cardboard, paper, PVC (soft/rigid), OPP laminate, Offset
Application	Paper finishing, packaging material
Further processing	Punching, cutting
Delivery conditions	1 kg / 5 kg / 20 kg
Shelf life	12 months
Others	Stir well before use, protect from direct light.

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