

PERMANENT PROTECTION OF PLASTICS AND OTHER SUBSTRATES

Scratch and abrasion resistance for Industrial and Transportation Coatings

Various chemistries to approach one goal

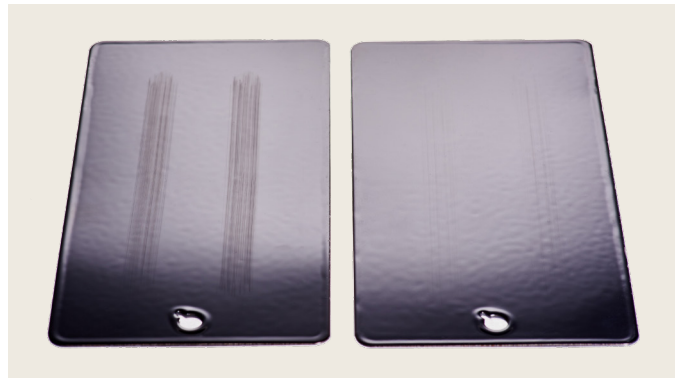


The resistance of surface coatings to scratch, abrasion, and mar is a key criterion in the development of high value top coats required in many applications. The approach of

using the best combination of various special additives make it possible to achieve an improvement for durable surfaces.

Co-binders
with higher Tg

Silica particles



Slip additives

Functionalized
colloidal
nano silica



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Co-binders with higher Tg

PRODUCT	SUPPLY FORM	TG (°C)	REMARKS
based on polyester resin			
TEGO® AddBond LTH	100% pellet form	+ 90	solvent-borne
TEGO® AddBond LTW	60% liquid form	+ 20	solvent-borne
TEGO® AddBond DS 1300	45% liquid form	+ 30	water-borne
based on ketone-aldehyd resin			
TEGO® VariPlus SK	100% pellet form	+ 90	solvent-borne
TEGO® VariPlus DS 50	33% liquid form	+ 120	water-borne

Silica

PRODUCT	SUPPLY FORM	particle size d ₅₀	REMARKS
Fumed silica			
AEROSIL® E 9200 ^{NEW}	structure-modified, hydrophobic powder	–	solvent-borne, water-borne
Precipitated spherical silica			
SPERILEX® DP-0111	hydrophilic silica powder	5.5 µm	solvent-borne, water-borne
SPERILEX® DP-0112	hydrophilic silica powder	10 µm	solvent-borne, water-borne
SPERILEX® DP-0115	hydrophilic silica powder	15 µm	solvent-borne, water-borne
Functionalized colloidal nano silica			
NANOPOL® C 784	50% in butylacetate	20 nm	solvent-borne
NANOPOL® C 750	43% in water	20 nm	water-borne
NANOCRYL® C 150	50% in TMPTA	20 nm	UV

Slip additives based on polyethersiloxane

PRODUCT	SUPPLY FORM	REMARKS
TEGO® Glide 410	100% OH-functional slip agent	solvent-borne, water-borne
TEGO® Glide 496	100% non OH-functional slip agent	solvent-borne, water-borne, UV
TEGO® Glide 494	65% emulsion slip agent	water-borne
TEGO® Glide 432	100% concentrate slip agent	UV
TEGO® Rad 2500	100% acrylate functional slip agent	UV

Addition levels of different enhancers:

Silica-based products: 3, 5 and 10% solid on solid

Modified polysiloxane additives: 0.1 and 0.5% solid on solid

Co-binders: 3, 5 and 10% solid on solid

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EVONIK OPERATIONS GMBH
 Goldschmidtstraße 100
 45127 Essen
 Germany
 Phone +49 201 173-2222
 Fax +49 201 173-1939
 coating-additives@evonik.com
 www.coating-additives.com