

PRELIMINARY PRODUCT INFORMATION

TYPE

Waterborne, self-crosslinkable, aromatic/aliphatic polyurethane dispersion

FORM OF DELIVERY (f.o.d.)

40 % in water / N-ethylpyrrolidone (40WANEP)

DEVELOPMENT PRODUCT

This product is serving for trial purposes only. Deviations which might occur during transfer into manufacturing in a commercial scale are possible and do not constitute any material defect.

Neutralization agent

approx. 1.1 % triethylamine, as salt

TENTATIVE PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219

dynamic viscosity (100 1/s; 23 °C)	[mPa.s]	150 - 1500
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pH-Value DIN ISO 976

pH-value (10 %)		7,2 - 8,0
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Non-Volatile Matter DIN EN ISO 3251

non-volatile matter (1 h; 125 °C; 1 g)	[%]	38,5 - 41,5
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Not continually determined:

Colour / Appearance VLN 250

colour		yellowish
appearance		opaque

Density (Liquids) DIN EN ISO 2811-2

density approx. (20 °C)	[g/cm³]	1,08
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Flash Point (CCCFP) ASTM D 6450

flash point	[°C]	> 94
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SPECIAL PROPERTIES AND USE

Daotan TW 6438 is a waterborne, emulsifier-free polyurethane dispersion with high shear-stability. Dried at ambient temperature Daotan TW 6438 provides transparent, crack-free and flexible films. Due to excellent adhesion to different plastic substrates like e.g. ABS, PA, PVC and pre-treated PP, Daotan TW 6438 is predominantly recommended for quick drying plastic primers. Overcoatability and sandability of these primers is excellent. To further improve solvent resistance - and sanding properties of primers based on Daotan TW 6438 adipic acid-di-hydrazid can be added as additional crosslinker. According to our experience we recommend 0,6 g adipic acid-di-hydrazid for 100 g Daotan TW 6438 (as supplied).

Recommended Additives

Additol VXW 6503: substrate wetting- and leveling agent
Additol VXW 6208: dispersing additive
Additol XW 375: defoamer

STORAGE

At temperatures up to 25 °C storage stability packed in original containers amounts to at least 180 days.

It is important to protect Daotan TW 6438 from freezing at low temperatures store under "keep from freezing" conditions.

Lowest storage temperature: 5 °C

Possible colour shifts of the product to yellow or reddish-brown does not influence the product quality due to our knowledge. It is caused by complex formation of the resin coordinating with very minor amounts of Fe-ions.

Due to the quick physical drying of Daotan TW 6438/40WANEP it is strongly recommended to filter the product (5 µm filter) prior to use.

REMARK:

Data contained in this publication are based on careful investigations (and are intended for information only). Due to scale up of this product there is not yet sufficient experience concerning serial production. We can therefore not exclude, that based on future knowledge product data and other indicated properties in upcoming Technical Data Sheets will be subject to change. We reserve the right to leave the product name unchanged, even if product data or other indicated properties will vary from the present product info. Regardless of the data contained in this publication any user is obliged to carry out tests under his own responsibility as to the suitability of the product for a particular use and to investigate the possible violation of industrial property rights of third parties. Information is therefore not binding and cannot be construed as guaranteeing specific properties of products. We apply our General Sales Conditions.