

PRELIMINARY PRODUCT INFORMATION

TYPE

Aqueous, solvent free, polyester-based polyurethane dispersion which contains hydroxy groups

FORM OF DELIVERY (f.o.d.)

40 % in water (40WA)

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. 1.5 % N,N-dimethylethanolamine, as salt

OH content (solid resin)

approx. 3 %

TENTATIVE PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219

dynamic viscosity (100 1/s; 23 °C)	[mPa.s]	100 - 1100
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pH-Value DIN ISO 976

pH-value (20 %)		7,3 - 8,4
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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

appearance		clear to opaque
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Density (Liquids) DIN EN ISO 2811-2

density approx. (20 °C)	[g/cm ³]	1,02
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Flash Point (Pensky-Martens) DIN EN ISO 2719

flash point	[°C]	> 95
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Glass Transition Temperature DIN EN 61006

glass transition temperature approx. (dynamic mechanical analysis; 10 K/min)	[°C]	- 20
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SPECIAL PROPERTIES AND USE

Daotan TW 7225 is a hydroxy functional polyurethane dispersion with shear stability and pigment compatibility, giving highly flexible films when cured with isocyanates as well as melamine resins. The hydroxy value of the solid resin is approx. 100 mg KOH/g.

These properties allow for the formulation of highly flexible coating systems especially for primers for plastics. Such systems have very good adhesion e.g. to polyamide, polycarbonate, ABS, as well as pretreated PP/EPDM. The adhesion to each plastic substrate requires individual investigation. In addition Daotan TW 7225 is also suited for formulating aqueous automotive OEM primer surfacers.

PROCESSING

Daotan TW 7225 has good pigment wetting properties and is compatible with the commercially used pigments and extenders. Basic and alkaline sensitive pigments are not suitable. The use of certain additives such as Additol XL 250 ease pigment wetting and shorten dispersing time. The use of antisetling agents is generally not necessary. Foam generated during agitation and milling disappears within 24 hours.

When applying the formulated system a sufficient humidity level should exist to prevent blister formation.

STORAGE

At temperatures up to 25 °C storage stability packed in original containers amounts to at least 365 days.

It is important to protect Daotan TW 7225 from frost; at low temperatures it has therefore to be stored under frostproof conditions.

DISTINGUISHING FEATURES

Daotan TW 7225 may be used as solvent free alternative of Daotan VTW 1225!

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.