

TYPE

Aqueous, aliphatic polyurethane dispersion which contains hydroxy groups

Neutralization agent

approx. 1.9 % N,N-dimethylethanolamine, as salt

FORM OF DELIVERY (f.o.d.)

40 % in water (40WANEP)
(containing 6.3 % 1-ethyl-2-pyrrolidone)

PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219

dynamic viscosity (100 1/s; 23 °C)	[mPa.s]	100 - 800
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pH-Value DIN ISO 976

pH-value (20 %)		6,7 - 7,7
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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/cm³]	1,06
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Flash Point (Pensky-Martens) DIN EN ISO 2719

flash point	[°C]	> 100
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SPECIAL PROPERTIES AND USE

Daotan TW 1225 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. 47 mg KOH/g.

These properties allow for the formulation of highly flexible coating systems especially for primers and decorative top coats 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 1225 is also suited for formulating aqueous primer surfaces.

PROCESSING

Daotan TW 1225 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 antissettling 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 1225 from frost; at low temperatures it has therefore to be stored under frostproof conditions.

DISTINGUISHING FEATURES

Daotan TW 1225 is more elastic than Daotan VTW 1227 and is in comparison with Daotan VTE 2229 aliphatic in structure.

Compared with Daotan VTW 1225, Daotan TW 1225 contains no N-Methyl pyrrolidone.

