

PRELIMINARY PRODUCT INFORMATION

TYPE

Aqueous, low-viscous polyurethane dispersion, polyester based with aromatic and aliphatic parts

FORM OF DELIVERY (f.o.d.)

32 % in water (32WA)
(also containing 2.3 % Dipropylenglycol-dimethylether and 3,9 % Methoxypropanol)

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 % N,N-dimethylethanolamine, as salt

TENTATIVE PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219
dynamic viscosity [mPa.s] max. 100
(100 1/s; 23 °C)

Non-Volatile Matter DIN 55671
non-volatile matter [%] 31 - 33
(125 °C; 10 min)

Not continually determined:

pH-Value DIN ISO 976
pH-value 7,8 - 8,9
(10 %)

Colour / Appearance VLN 250
colour whitish
appearance cloudy

Density (Liquids) DIN EN ISO 2811-2
density [g/cm³] 1,05
approx.
(20 °C)

Flash Point (CCCFP) ASTM D 6450
flash point [°C] > 95

SPECIAL PROPERTIES AND USE

Daotan TW 6451/32WA is recommended as the NMP / NEP- free alternative for Daotan (V)TW 1235. Alike latter Daotan TW 6451 is a polyesterbased, shear stable, high molecular weight polyurethane dispersion. Dried at ambient temperature Daotan TW 6451 is providing clear, crack- free films without further addition of organic solvents or additives.

These films exhibit excellent elasticity and mechanical properties as well as very good adhesion to different plastic substrates like e.g. ABS, PC, PA, PVC, PC/PBT, ...

Accordingly Daotan TW 6451/32WA is particularly recommended for waterborne plastic primer. A further use is as a modifier resin to improve stone chip resistance properties of e.g. auto OEM primer surfacer formulations.

DILUTABILITY

Daotan TW 6451/32WA provides unlimited dilutability with deionized water, compatibility with organic solvents is limited; e. g. butyl glycol causes significant swelling of Daotan TW 6451. With Proglyde DMM Daotan TW 6451 is completely incompatible. According to our experience Dowanol DPM is a quite suitable diluent. In general it is recommendable to pre-dilute the solvent with deionized water before adding to Daotan TW 6451.

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 6451/32WA from frost; at low temperatures it has therefore to be stored under frostproof conditions.

Lowest storage temperature: 5 °C

DISTINGUISHING FEATURES

Compared to Daotan (V)TW 1235 Daotan TW 6451/32WA provides significantly quicker drying speed at ambient temperature. Properties like adhesion to different plastic substrates, mechanical properties and humidity resistance are in the same range.

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.