

### TYPE

Aqueous aliphatic polyurethane dispersion, polycarbonate based

### 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.**

### FORM OF DELIVERY (f.o.d.)

30 % in water (30WA)  
(also containing 4.3 % Dipropylenglycol-dimethylether and 1 % Methoxypropanol)

#### Neutralization agent

approx. 1 % N,N-dimethylethanolamine, as salt

### SPECIAL PROPERTIES AND USE

DAOTAN TW 6450/30WA is recommended as the NMP / NEP- free alternative for DAOTAN (V)TW 1236. Alike latter DAOTAN TW 6450 is a polycarbonate- based, high molecular weight Polyurethanedispersion. Dried at ambient temperature DAOTAN TW 6450 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 6450/30WA is particularly recommended for waterborne plastic primer and waterborne auto OEM Basecoats with outstanding requirements in terms of stone chip resistance properties. A further use is as modifier resin to improve stone chip resistance properties of e.g. auto OEM primer surfacer formulations.

DAOTAN TW 6450/30WA can be used as adhesive for pharmaceutical and food packaging application providing excellent peel strength and longtime humidity resistance. Ready to use, no further formulation needed.

### TENTATIVE PRODUCT DATA

#### Determined per batch:

#### Dynamic Viscosity DIN EN ISO 3219

dynamic viscosity (100 1/s; 23 °C)	[mPa.s]	max. 50
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#### Non-Volatile Matter DIN 55671

non-volatile matter (125 °C; 10 min; 0,6 g)	[%]	29 - 31
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#### Not continually determined:

#### pH-Value DIN ISO 976

pH-value (10 %)		7,3 - 9,0
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#### Colour / Appearance VLN 250

colour appearance		whitish cloudy
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#### Density (Liquids) DIN EN ISO 2811-2

density approx. (20 °C)	[g/cm³]	1,04
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#### Flash Point (CCCFP) ASTM D 6450

flash point	[°C]	> 95
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### DILUTABILITY

DAOTAN TW 6450/30WA provides unlimited dilutability with deionized water, compatibility with organic solvents is limited; e. g. butyl glycol or butyl diglycol cause a strong swelling of DAOTAN TW 6450. With Proglyde DMM DAOTAN TW 6450 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 6450.

### STORAGE

It is important to protect DAOTAN TW 6450 from frost; at low temperatures it has therefore to be stored under frostproof conditions.

**Lowest storage temperature: 5 °C**

### SHELF LIFE

Standard Shelf Life is 365 days from the date of manufacturing. For products still in allnex possession allnex may extend the expiration date of a batch upon re-testing by QC.

### DISTINGUISHING FEATURES

Compared to DAOTAN (V)TW 1236, DAOTAN TW 6450 provides 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.**