

### TYPE

Physically drying, solvent and surfactant free, aqueous aliphatic poly(urethane-urea)-dispersion based on poly(butadiene)

### Neutralization agent

0.9 % triethylamine, as salt

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

45 % in water (45WA)

### PRODUCT DATA

#### Determined per batch:

#### Dynamic Viscosity DIN EN ISO 3219

dynamic viscosity (25 1/s; 23 °C)	[mPa.s]	150 - 1500
--------------------------------------	---------	------------

#### Non-Volatile Matter DIN EN ISO 3251

non-volatile matter (1 h; 125 °C; 1 g)	[%]	43,5 - 46,5
---	-----	-------------

#### pH-Value DIN ISO 976

pH-value (10 %)		7,3 - 8,3
--------------------	--	-----------

#### Not continually determined:

#### Colour / Appearance VLN 250

colour		colourless to light yellow
appearance		opaque

#### Density (Liquids) DIN EN ISO 2811-2

density approx. (20 °C)	[g/cm <sup>3</sup> ]	0,99
-------------------------------	----------------------	------

#### Flash Point (Pensky-Martens) DIN EN ISO 2719

flash point	[°C]	> 100
-------------	------	-------

### SPECIAL PROPERTIES AND USE

Daotan TW 6431/45WA is a solvent free, physically drying poly-(urethane-urea)-dispersion based on poly(butadiene). It is fast drying and provides clear, crack free and highly flexible films.

Daotan TW 6431/45WA is shear stable, pigment compatible and has a good compatibility with silicone oil. Coating films have good abrasion characteristics and good resistance to a broad variety of chemicals. The cohesion forces of free films are very high. This results in an extreme elasticity. The maximal elongation is approx. 800 to 1000 %.

Main application of Daotan TW 6431/45WA is coating and sealing of a wide variety of substrates, when flexibility and chemical resistance or even stripability of the coating is necessary. Very good adhesion is observed on caoutchouc, SBR and PUR-RIM.

Weak adhesion can be observed on many plastics (e. g. PP, ABS, PC, PMMA, PVC, PA, PS) and on several substrates like glass and high-grade steel. On these substrates Daotan TW 6431/45WA can be used for stripable protection coatings. If good adhesion on these substrates should be achieved, a primer based on polyurethane dispersions (e. g. Daotan VTW 1233, Daotan VTW 1237) is recommended.

On substrates, which contain copper-, iron- and other ions of transition metals, it is possible to have partial diffusion of these ions into the coating. This can catalyse an oxidative crosslinking, yielding very hard coatings. Weak adhesion of coatings on these substrates can be strongly improved by this reaction. On stainless steel no auto-crosslinking could be observed.

### 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 6431/45WA from frost; at low temperatures it has therefore to be stored under frostproof condition.

---

### DISTINGUISHING FEATURES

Within Daotan-product range Daotan TW 6431/45WA shows the highest elasticity and the best resistance to chemicals (e. g. concentrated sodium hydroxide). This level of chemical resistance of coatings based on Daotan TW 6431/45WA, which are physically drying systems, can be achieved otherwise only by 2-pack coating systems.