

## PRELIMINARY PRODUCT INFORMATION

### TYPE

Aqueous emulsion of an aliphatic urethane-acryl-hybrid, solvent and emulsifier free

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

35 % in water (35WA)

## 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

0.8 % N,N-dimethyl ethanolamine, as salt

## TENTATIVE PRODUCT DATA

### Determined per batch:

#### Dynamic Viscosity DIN EN ISO 3219

dynamic viscosity (100 1/s; 23 °C)	[mPa.s]	10 - 350
---------------------------------------	---------	----------

#### pH-Value DIN ISO 976

pH-value (10 %)		7,5 - 8,5
--------------------	--	-----------

#### Non-Volatile Matter DIN 55671

non-volatile matter (125 °C; 10 min)	[%]	34 - 36
---	-----	---------

### Not continually determined:

#### Colour / Appearance VLN 250

colour		colourless to yellowish
appearance		opaque

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

non-volatile matter (1 h; 125 °C; 1 g)	[%]	34 - 36
---	-----	---------

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

density approx. (20 °C)	[g/cm <sup>3</sup> ]	1,03
-------------------------------	----------------------	------

#### Flash Point (CCCFP) ASTM D 6450

flash point	[°C]	> 95
-------------	------	------

## SPECIAL PROPERTIES AND USE

Daotan TW 7061 is a polyester-based, acrylic modified high molecular weight polyurethane dispersion. The resin provides shear stability and is free of solvents and emulsifiers.

Dried at ambient temperature Daotan TW 7061 yields clear and crack-free films without any previous addition of solvents or paint additives.

In conjunction with thickeners (especially layered silicates) Daotan TW 7061 is providing a unique viscosity behavior, i.e. already small additions of thickener cause a significant pseudo-plasticity. Accordingly Daotan TW 7061 is a perfect fit for premium quality, waterborne metallic Basecoat formulations for automotive OEM and VR applications.

These Basecoats are characterized by:

- UNIQUE thermal yellowing stability up to 200 °C
- outstanding appearance and bright metallic effects
- excellent mechanical properties e.g. stone chip resistance properties
- excellent adhesion to CED as well as ferrous- and non-ferrous metals (aluminum!) in baking enamels (in combination with e.g. Cymel 303 or Cymel 327)
- outstanding wet adhesion even in low bake applications
- excellent adhesion to a wide variety of plastic substrates (isocyanate crosslinked as well as NON crosslinked primer formulations)
- very good outdoor durability

## DILUTABILITY

Daotan TW 7061 provides unlimited dilutability with deionized water, compatibility with organic solvents is limited and requires careful pretesting!

### STORAGE

At temperatures from 5 °C to 25 °C storage stability packed in original containers amounts to at least 450 days.

It is important to protect Daotan TW 7061 from frost; at low temperatures it has therefore to be stored under frostproof conditions.

Due to the quick physical drying of Daotan TW 7061 it is strongly recommended to filter the product (5 µm filter) prior to use.

### DISTINGUISHING FEATURES

Compared to Daotan TW 6466, Daotan TW 7061 is significantly better with regard to thermal yellowing stability. Also wet adhesion in low bake applications is superior to Daotan TW 6466.

### 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.**