DAOTAN® TW 6429/40WA

Technical Datasheet

PRELIMINARY PRODUCT INFORMATION

TYPE

Aqueous aromatic polyurethane dispersion, containing hydroxy groups

FORM OF DELIVERY (f.o.d.)

40 % in water (40WA)
(containing also 3 % butyl glycol
and 3.6 % dipropyleneglycol dimethylether)

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. 2.2 % N,N-dimethylethanolamine, as salt

TENTATIVE PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219		
dynamic viscosity (100 1/s; 23 °C)	[mPa.s]	200 - 2200
pH-Value DIN ISO 976		
pH-value (20 %)		7,1 - 8,1
Non-Volatile Matter DIN EN ISO 3251		
non-volatile matter (1 h; 125 °C; 1 g)	[%]	38,5 - 41,5

Not continually determined:

Colour / Appearance VLN 250		
appearance		clear to opaque
Density (Liquids) DIN EN ISO 2811-2		
density approx. (20 °C)	[g/cm³]	1,08
Flash Point (Pensky-Martens) DIN EN ISO 2719		
flash point	[°C]	> 95

SPECIAL PROPERTIES AND USE

Daotan TW 6429 is a hydroxy functional polyurethane dispersion with shear stability, pigment compatibility giving highly flexible films when cured with isocyanates as well as melamine resins. The hydroxy value of the solid resin is approx. 43 mg KOH/g.

These properties allow the formulation of highly flexible coating systems, especially for primers to coat plastics. Such systems have good adhesion e.g. to rigid PVC, polyamide, ABS, as well as untreated PP/EPDM. The assured adhesion to each plastic substrate requires individual investigation. In addition Daotan TW 6429 is also suited for formulating aqueous automotive OEM primer surfacers.

PROCESSING

Daotan TW 6429 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 antisettling 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 6429 from frost; at low temperatures it has therefore to be stored under frostproof conditions.

DISTINGUISHING FEATURES

Daotan TW 6429/40WA, compared to Daotan VTW 2229/40WANMP and Daotan TW 2229/40WANEP, contains neither N-methyl pyrrolidone nor N-ethyl pyrrolidone. Moreover the solvent content of Daotan TW 6429/40WA is lower.
Apart from that these 3 resins are - at least due to our experience - comparable.

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.