TIXOGEL VZ

Gellant

Product Data

Recommended Use
TIXOGEL VZ is a thixotropic and antisettling agent for the following fields of application:

Medium-polarity to high polarity systems in mixture with aliphatic and aromatic hydrocarbons
· Nitro- and nitro combination varnishes
· Polyester varnishes and surfacers
· Epoxy paints
· Polyacrylate paints
· Epoxy (without solvents)
· Vinyl resin varnishes
· Polyurethane varnishes
· Silicon varnishes

Special systems
· Dip-coating varnishes
· Adhesives
· Priming coats
· Pickling agents
· Wash-primer
· Vegetable oils
· Printing inks (nitro base)
· Synthetic lubricants (in combination with wetting agents, e.g. Texaphor spezial)

Suitable Solvents
Alcohols and ketones (more than 4 C atoms), ethylene glycols, ethylene glycol ether, propylene carbonate all in mixture with aromatic hydrocarbons, aliphatic hydrocarbons, phthalic acid esters, vegetable oils, epoxy resins, polyethers, polyurethanes. TIXOGEL VZ shows good results if the above mentioned organic systems are mixed with methanol, ethanol, propanol, butanol, methyl ethyl ketone, methyl isobutyl ketone, acetone and ethyl acetate. The quantity of the latter high polar solvents should not exceed 20 % of the total solvent system.

Typical Properties
The values indicated in this data sheet describe typical properties and do not constitute specification limits.

Colour:	cream
Specific weight:	1.7 g/cm³
Bulk density:	250-400 g/l
Residue on 90 µm screen:	max. 15 %
Primary particle size atcomplete dispersion:	1-5 µm
Water content:	max. 3 %
Temperature stability:	200-250 °C

Incorporation and Processing Instructions

For optimum gelling TIXOGEL VZ must be dispersed in the solvents using high shearing forces. An agitator operating at 1.000 to 3.000 rpm will generally be sufficient.

First, an 8-10 % parent batch is prepared, e.g. in solvent naphtha. After dispersion in this solvent (approx. 5-10 min at 1.800 rpm), polar solvents are added for optimum gelation, e.g.:

Methanol / H_2O 95 / 5 30 % relative to dry TIXOGEL VZ
Ethanol / H_2O 96/ 4 35 % relative to dry TIXOGEL VZ
Acetone 60 % relative to dry TIXOGEL VZ
Glycolether 60 % relative to dry TIXOGEL VZ

Depending on the consistency required, 2-8 % of the parent batch (equivalent TIXOGEL VZ content 0.2-0.8%) are worked into the paint system. These preparations are then processed with cylinder mills, ball mills or agitators.

If TIXOGEL VZ is to be worked directly into a paint system, the product is first moistened with the above-mentioned quantity of a polar solvent and then homogenized. The moistened TIXOGEL VZ is then stirred into the organic system by means of an agitator and subsequently is processed in a cylinder mill, ball mill or bead mill, or directly dispersed by an agitator producing high shear. Various surface-active agents such as lecithin, anti-terra U, texaphor can assist the working-in of TIXOGEL VZ. It must be ensured, however, that the surface-active agent used is compatible with the paint system and does not cause any perturbation.

TIXOGEL VZ is resistant to dilute acids and alkalines.

Storage and Transportation

Two years if stored dry in unopened, original packaging at temperatures between 0 °C and 30 °C.

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