

# PEARLSTICK® 45-50/03

Linear Thermoplastic Polyurethane

PEARLSTICK® 45-50/03 is an elastic, linear, aromatic polyurethane with an extremely high crystallization rate and a medium-low thermoplasticity level.

## PRODUCT SPECIFICATIONS

<b>Supply form</b>	: <b>White or slightly yellowish pellets</b> (The mentioned colour difference does not affect the quality of the adhesive)
<b>Viscosity @ 20°C</b> (Brookfield RVF sp.2, 20 rpm solution at 15% in MEK)	: <b>200 - 400 mPa.s</b> (MQSA N° 40 A)

## PRODUCT CHARACTERISTICS

Density @ 20°C	: Approx. 1.19 g/cm <sup>3</sup> .
Hydroxyl number	: Approx. 0.1 %
Hydrolysis Resistance	: Good
Minimum Activation Temperature	: Approx. 55 °C.

## SOLUBILITY

PEARLSTICK® 45-50/03 is soluble in acetone, methyl ethyl ketone (MEK), cyclohexanone, dimethyl formamide, tetrahydrofurane (THF). Diluting solvents such as toluene and ethyl acetate can be added.

The solvents and diluents should be water-free (max. 0.1 %), so as to avoid subsequent side reactions during crosslinking with isocyanates.

## SOLUTIONS

PEARLSTICK® 45-50/03 should be dissolved in closed tanks, and the use of a variable speed agitator is advisable. The final viscosity figures can vary, depending on the stirring process and on the solvent/diluents ratios.

Please see our technical sheet on "**Process for obtaining solutions based on PEARLSTICK®**".

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## APPLICATIONS

**PEARLSTICK® 45-50/03** is used for the production of adhesives for bonding plasticized PVC to plasticized PVC or other materials such as leather, textiles, rubber, in the shoe industry.

**PEARLSTICK® 45-40/05** enables the production of adhesives for spray application for the automotive and other industrial uses.

**PEARLSTICK® 45-50/03** has a good heat resistance and improved freeze resistance. The addition of a poly-functional isocyanate improves the heat-resistance and the strength of the bonding.

## HEALTH AND SAFETY

A safety data sheet on **PEARLSTICK® 45-50/03** is available, with all safety information. When solutions are prepared, the usual safety practices in the handling of chemicals should be observed, i.e.: good ventilation in the working area, good skin protection and protective goggles.

## PACKAGING

PE bags containing 25 kgs. n.w.  
Pallets of 750 kgs. n.w.

## STORAGE

**PEARLSTICK® 45-50/03** should be stored in a **cool (15-25°C) and dry place**, for periods that should not exceed 6 months, in well-closed packaging.