POLYMATE Ltd.
International Nanotechnology Research Center

Uramine® 4761-S
Curing agent

Description

Uramine 4761-S – Nonisocyanate Modified curing agent for Epoxy-amine systems. It`s designed for use as a curing agent for Ultra Light Stable (ULS) liquid compounds in most indoor / outdoor applications - abrasive, impact, chemical and UV-resistant flooring, paints and other coatings.

Advantages

- Accelerated curing and fast properties development.
- Absence of solvents.
- Good moisture and chemical resistance;
- Excellent adhesion properties;
- High impact and tension strength;
- Excellent hardness;
- High gloss and color retention.
- Increased abrasion resistance;
- Low viscosity;
- Hygienic and simple cleaning.

Applications

- UV- stable hardener for application of outdoor, indoor epoxy – amine systems;
- Accelerator for other curing agents;
- Civil engineering;
- Increases decorative coating appearance.

Storage:

Keep in a well-ventilated place in tightly sealed containers.
Keep at the temperature not less than 77°F (25°C).
Protect from frost.
The viscosity increases significantly at low temperature.
Keep away from heat, direct sunlight and acids.
Storage life at least 12 month from the date of manufacture in the original sealed container at ambient temperature.
Store away from acids, excessive heat and humidity in closed containers.

Handling Precautions

Refer to the material Safety Data Sheet for Uramine 4761-S.

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TECHNICAL DATE SHEET

PROPERTIES	UNIT	STANDARD	VALUE
General			
Type of the product	Modified non-isocyanate urethane curing agent		
Use	Epoxy curing agent that improves physical properties of ULS epoxy-urethane coatings - flooring, paints, varnish, etc.		
Typical Physical Properties			
Physical Form	Liquid		
Color	Colorless		
Density at 77ºF (25ºC)	lb/gal (g/cm^3)		8.35-8.76 (1.0 – 1.05)
Viscosity at: +77 (+25) ºF (ºC) (Brookfield RVDV II, Spindle 29, 100rpm)	cP (mPa·s)	ASTM D2196	400 -800
Equivalent Wt /(H)			80
Application temperature	ºF (ºC)		+ 59-77 (+ 15-25)
Flash Point (closed cup)	ºF (ºC)		~ 242.6 (117)
Boiling point:	ºF (ºC)		> 599ºF (315ºC)
Freezing/Melting point:	ºF (ºC)		~ -40ºF (-40ºC)
Solubility in Water			∞
Typical Handling Properties *			
Gel Time (150g mix at 77ºF (25ºC)	min		40
Thin Film Set Time at 77ºF (25ºC)	min		90
Tensile strength at break	psi (MPa)	ASTM D638	7,100-10,000 (49-69)
Elongation at break	%	ASTM D638	3-5
Hardness (Shore D)		ASTM D2240	75-80
Abrasion resistance (TABER, wheel C17 1000g), loss of mass	mg/1000 cycles	ASTM D4060	25-30
*Uramine 4761-S 1 curing agent formulated with light stable Hydrogenated Bisphenol A epoxy resin (EEW=210-230)			
Weight gain at immersion - in water - Sulfuric acid – 10% H_2SO_4	%	ASTM D570	 0.1-0.5 0.5-1
Motor oil			No effect
Brake fluid			Gloss reduction
Vegetable oil			No effect