

Industrial Coatings

Technical Data Sheet

Sovermol[®] 750



Product Description	Sovermol [®] 750 is a polyol that is designed to be used in combination with polymeric isocyanates as a reactive component for polyurethane systems.
Key Features & Benefits	<ul style="list-style-type: none">- Excellent UV, weathering and chemical resistance with HDI isocyanates- High Shore D hardness, saponification stability and Tg- Hydrolysis stable and hydrophobic
Chemical Composition	Branched polyether/polyester

Properties

Product Specifications	Acid value	< 2 mg KOH/g
	Hydroxyl value	300 – 330 mg KOH/g
	Hydroxyl equivalent weight	170 – 187
	Water content	< 0.1%
	Viscosity at 20°C	700 – 1,400 cps
	Gardner color	0 – 3
Typical Characteristics	Appearance	low viscous, yellow liquid
	Molecular weight	approx. 540 g/mol
	Density at 20°C	0.98 – 1.02 g/cm ³
	Epoxide oxygen content	< 0.1%
	Flash point	> 200,000°C
	Functionality	~ 3

These typical values should not be interpreted as specifications.

Applications

Sovermol[®] 750 is a polyol that is designed to be used in combination with isocyanates as a reactive component for 2-pack polyurethane coatings and casting materials and is suitable for UV-stable and weather-resistant coatings. It shows particular water repellency, which results in less sensitivity to moisture while curing.

Sovermol[®] 750 is recommended for applications such as:

- 2-pack polyurethane coating and casting materials
- UV-stable and weather-resistant coatings

Processing	Sovermol [®] 750 tends to crystallize at temperatures < 15°C. However, it is reversible if warmed up to approximately 50 – 60°C while stirring.
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Mixing Formulation for UV-stable coatings on balconies

Sovermol [®] 750 in combination with	Aliphatic Polyisocyanate, HDI based (NCO = 23%)
Sovermol [®] 750	70
Sovermol [®] 1052	30
Dimethyltin carboxylate catalyst (5% in Sovermol [®] 750)	0.4
Zeolith paste	5
Perenol [®] E-8	1
Barium sulfite extender (filler)	100

Formulation attributes

Mixing ratio	100:39
Gel time, minutes	55:00
Tensile strength	1300 psi
Elongation	40%
Tg, DMA/DSC	-23 / 30°C
Hardness, Shore D, room temperature	
after 1 day	37
after 4 days	40
Hardness, Shore A/D, after 2 days storage at 80°C	47
Taber Abrasion Loss (1000 rpm, 1000g, CS-17)	181mg

Typical Cured Properties of Sovermol[®] 750 (in combination with):

Properties	Polymer MDI (NCO = 31%)	MDI (Carbodiimid-modified) (NCO = 27%)	Aliphatic Polyisocyanate, HDI based (NCO = 23%)
Mixing ratio	100:76	100:88	100:103
Zirconium chelate catalyst	--	--	2.5g per 100g polyol
Gel time, minutes	45:00	54:00	14:00
Tensile strength	6236 psi	5800 psi	725 psi
Bending strength	7686 psi	7686 psi	--
Elongation	5%	6%	52%
Tg 2 days at 80°C	107°C	101°C	--
Hardness, Shore A/D, room temperature, after 1 day	--/69	--/75	55/--
after 2 days	--/80	--/83	61/--
after 7 days	--/86	--/86	72/--
after 14 days	--/86	--/86	--/--
after 28 days	--/86	--/86	77/--
Hardness, Shore A/D, after 2 days storage at 80°C	--/86	--/84	77/34

Safety**General**

The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State, and Local health and safety regulations, thorough ventilation of the workplace, good skin care, and wearing of protective goggles.

Material Safety Data Sheet

All safety information is provided in the Material Safety Data Sheet for Sovermol[®] 750.

Storage

Properly stored and protected, an unopened container of Sovermol[®] 750 should have a shelf life of at least one year.

Important

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