

# Industrial Coatings

## Technical Data Sheet

# Sovermol<sup>®</sup> 815



**Product Description** Sovermol<sup>®</sup> 815 is a polyol used in the manufacturing of 2 component polyurethanes.

**Key Features & Benefits**

- Excellent UV, weathering and chemical resistance with HDI isocyanates
- High Shore D hardness, saponification resistance and Tg
- Hydrolysis stable and hydrophobic
- High content on renewable raw material
- Binder for pigment pastes

**Chemical Composition** Branched polyether/polyester

### Properties

#### Product Specifications

Acid value	< 3 mg KOH/g
Hydroxyl value	200 – 230 mg KOH/g
Water content	< 0.2%
Viscosity at 25°C	1,300 – 1,900 cps

#### Typical Characteristics

Acid value	< 3 mg KOH/g
Hydroxyl value	200 – 230 mg KOH/g
Hydroxyl equivalent weight	243 – 280
Water content	< 0.2%
Viscosity at 25°C	1,300 – 1,900 cps
Appearance	yellow liquid
Density at 20°C	0.98 – 1.02 g/cm <sup>3</sup> , 8.16 – 8.50 lbs/gal
Flash point	> 200°C

These typical values should not be interpreted as specifications.

### Applications

Sovermol<sup>®</sup> 815 might be slightly cloudy. This does not affect the product properties in a negative way. In addition, Sovermol<sup>®</sup> 815 shows particular water repellency, which results in less sensitivity to moisture while curing.

Sovermol<sup>®</sup> 815 is recommended for applications such as:

- Rigid- flexible 2 component coating and casting materials
- UV-stable and weather-resistant coatings

#### Processing

Sovermol<sup>®</sup> 815 tends to crystallize at temperatures < 15°C (59°F). However, it is reversible if the product is stored at a temperature over 35°C (95°F).

**Starting Point Formulation for casting (without filler)**

Sovermol <sup>®</sup> 815 in combination with	Aliphatic Polyisocyanate, HDI based (NCO = 23%)	
Sovermol <sup>®</sup> 815	100	
Zeolith paste	5	
Polymer MDI	52	
Pot Life 25°C	~ 60 min.	
Shore hardness – Storage/ Room Temperature	<i>A</i>	<i>D</i>
after 1 day	83	44
after 2 days	---	53
after 3 days	---	57
after 7 days	---	68
after 14 days	---	71
after 28 days	95	77

**Typical Cured Properties of Sovermol<sup>®</sup> 815 (in combination with):**

Properties	Polymer MDI (NCO = 31%)	MDI (Carbodiimid-modified) (NCO = 27%)	Aliphatic Polyisocyanate, HDI based (NCO = 23%)
Mixing ratio	100:52	100:60	100:59
Gel time, hours:minutes	01:04	00:34	01:50
Tensile strength in psi	3,190	2,320	725
Elongation	34%	54%	63%
Tear resistance in N/mm	81	78	10
Hardness, Shore D, at room temperature	---	---	---
after 1 day	44	35	---
after 2 days	59	55	---
after 3 days	63	60	---
after 7 days	71	64	---
after 14 days	74	71	---
after 28 days	77	73	---
Hardness, Shore A, after 1 day at 80°C	---	---	63
Hardness, Shore D, after 2 days at 80°C	---	---	37
Taber Abrasion (1 mm film) in mg loss, 1000 rpm	---	---	22

**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<sup>®</sup> 815.

**Storage**

Properly stored and protected, an unopened container of Sovermol<sup>®</sup> 815 should have a shelf life of at least one year.

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