



Technical Data Sheet

SIPOLYNATE® R125HDTE

Description

SIPOLYNATE® R125HDTE is a pre-blended CFC free polyurethane polyol for (2K) two-component rigid foams for land uplifting & grouting purposes. The system gives out a foam with a fine rigid cell structure and good inter-laminar adhesion. The system uses SIPANE™ as our in-house developed CFC free blowing agent. The system is injected via high pressure machines into the cracks/voids of roads, grounds, etc. The system foams up with a relatively fast reactivity, filling the voids to uplift the subjected ground or road. The high density helps the grout to strengthen the ground or road as well.

Typical Component Properties

S No.	Characteristics	Unit	Polyol Specifications	Isocyanate Specifications
1.	Physical State	None	Liquid	Liquid
2.	Colour	None	Transparent Yellow	Dark Brownish
3.	Specific Gravity	None	1.02-1.05 (25°C)	1.23-1.25 (25°C)
4.	Viscosity	cps	250-450 (25°C)	200-250 (25°C)
5.	Hydroxyl Value	mgKOH/g	270-300	-
6.	NCO Content	%	-	30.5-32.5

Typical Reaction Characteristics

S No.	Characteristics	Unit	Specifications
1.	Ideal Operated Temperature	Celsius	25°C
2.	Mixing Ratio (Polyol:Isocyanate)	PBV	100:100
3.	Cream Time	seconds	15-25
4.	Gel Time	seconds	70-90
5.	End of Rise Time	seconds	90-110
6.	Tack Free Time	minutes	<2.5

The above reaction characteristics are achieved in the laboratory tests at 25°C via hand mixing with a mechanical stirrer at 3000 rpm. The overall applied density may also vary depending upon processing conditions, including ambient and substrate temperatures, mixing speed and time, water exposure levels, etc.

Typical Foam Properties

Serial No.	Characteristics	Unit	Specifications
1.	Free Rise Density	kg/m ³	100 ± 2
2.	Pack Density	kg/m ³	160 ± 2
3.	Expansion Ratio	times	7-10
4.	Dimensional Stability	%	1 max
5.	Fire Retardancy (PIR)	Class	B3 (DIN 4102)

Handling and Storage

The product must be stored out of direct sunlight, weather, and direct external fire sources. The containers must always be kept sealed against moisture. Ideal storage temperature is approximately 25°C or less. Under these conditions, the product will remain stable for 6 months.

Safety Precautions

SIPOLYNATE® is a blend of polyether polyols and other components, which include a small percentage of tertiary aliphatic amines.

- Because of its alkaline character, SIPOLYNATE® may cause slight to moderate irritation when it is exposed to the skin, the eyes, and the mucous membranes.
- Safety goggles and impermeable protective gloves should always be worn if there is a risk of direct exposure when handling SIPOLYNATE®.
- Splashes that are exposed to skin must be wiped off immediately and the contaminated areas must be thoroughly washed with soap and water.
- Affected areas should be treated with a good barrier cream.
- To prevent further contact with the skin, contaminated clothing should be changed immediately and thoroughly cleaned before reuse.
- The product must be kept away from food items.
- Anyone involved in the application of the system must familiarize themselves with the safety precautions required of rigid polyurethane foam.

Disclaimer

The information in this technical data sheet is believed to be accurate but is made without warranty. The values listed are typical properties for the material and should not be considered product specifications. Shakun Industries disclaims any liability in connection with the use of this information and does not guarantee against infringement because of the use of any of its products in combination with other materials or in any process. It is the buyer's responsibility to determine whether Shakun products are appropriate for buyer's use and to ensure that buyer's workplace and disposal practices are in compliance with applicable laws and regulations. No freedom from any patents owned by Shakun Industries or other industrial or intellectual property rights is granted or to be inferred.

Contact Information:

For more information about PU systems,
contact us: <https://www.shakunindustries.com>



---- END OF TECHNICAL DATA SHEET ----