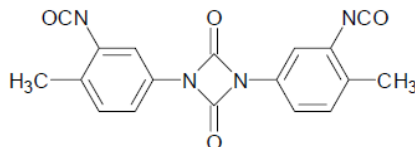




Thanecure® T9 SuperFine

Thanecure T9 Superfine is the dimer of 2,4-toluene diisocyanate (TDI). It is a *polyfunctional* isocyanate used as a vulcanizing agent for specialty millable polyurethane rubbers, as a crosslinker for adhesives and as an adhesion promoter for rubber-to-fabric bonding.



Product Description and Typical Properties

Chemical Composition	Dimeric 2,4-toluene diisocyanate
Molecular weight	348
Density	Approximately 1.48 g/cc
Melting Point	Minimum 145°C
Monomer (TDI) Content	Less than 0.1%
Screens	Minimum 99% through 325 mesh
Particle size, Malvern	Minimum 75% less than 10 microns
Appearance	Fine, white powder
Packaging	50 lb (22.7 kg) box
Storage Stability	24 months from date of manufacture, under dry and cool conditions

Functionality

Under mild reaction conditions, i.e. at up to ~ 130° C in the absence of basic catalysts, it is primarily bifunctional, with a molecular weight of 348. Under more severe conditions (either at temperatures above 140/150° C or with the aid of highly basic catalysts at temperatures above 90° C) it remains primarily bifunctional but with a molecular weight of 174, as the central uretdione group splits to form monomeric TDI.

NOTE: Please refer to the Material Safety Data Sheet and to the available literature regarding the handling of TDI.

Applications

- Adhesion promoter for rubber-to-fabric bonding (polyester, aramid, polyamide). Applications include tire cord, conveyor belts, drive belts, hose, coated fabrics.
- Adhesion promoter for PVC-to-fabric bonding (polyester, aramid, polyamide). Applications include coated fabrics, conveyor belts.
- Vulcanizing agent for polyurethane rubbers like Millathane® 26, particularly when a high hardness is desired. Applications include industrial molded parts, rollers, ceramic tile molds.
- Crosslinker for heat-activated adhesion, coating or elastomer systems.

Solubility

Grams of Thanecure T9 Superfine per 100 cc of solvent	Grams of Thanecure T9 Superfine per 100 cc of solvent		
	23° C	50° C	100° C
Water	—	—	—
Toluene	0.1	2.0	18
Chlorobenzene	0.3	3.0	36
o-Dichlorobenzene	0.1	2.0	7