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AROMATIC DIAMINE CHAIN EXTENDER

TECHNICAL DATA SHEET

Unilink 4200

Description

U4200 is a multifunctional aromatic diamine chain extender for polyurethane elastomers. Thanks to relatively low reactivity, U4200 can be used in TDI or MDI formulations, and cross-linking can be controlled by adding higher functioning polyols.

Performance Benefits:

- Easy handling, environmentally friendly liquid (Ames negative)
- Low moisture sensitivity
- Compatible with most polyols, co-curing agents and polyurethane chemicals
- Excellent storage stability in polyether and polyester polyols

Applications

FLEXIBLE FOAMS

U4200 improves tensile, tear and load-bearing properties in standard TDI and high-resilience slabstock foam systems, often at lower foam densities, and significantly improves polyester foam tear strength and load-bearing. It reduces density and softens cold-molded foams, producing higher tensile strength, tear and elongation, along with improved mold flow and decreased de-mold times.

RIGID FOAMS

Rigid foams cured with U4200 show significant improvements in compressive strength and dimensional stability with reduced friability, a higher percentage of closed cells and lower K-factor. Compressive strength improves by up to 100% in PIR foams, and dimensional stability also is significantly enhanced.

COATINGS, ADHESIVES, SEALANTS & ELASTOMERS

Formulations cured with U4200 adhere better and develop smoother surface finishes.

POLYUREA SYSTEMS

U4200 slows the gelling reaction, improving flow and allowing polyurea coatings to be processed by spray or pour techniques. Adhesion to the substrate and surface finishes improve, and so does bonding between coats. Cured systems have excellent physical properties and exhibit significant improvements in impact resistance and low-temperature performance.

Specification

PROPERTY	TYPICAL VALUE
Appearance	Clear, light-to-dark-brown liquid
Hydroxyl number	362
Flash point, PMCC, °C (°F), min	161 (321.8)
Specific gravity @ 26.7 °C (80 °F)	0.98 to 0.99
Density, g/cm ³ (lb/gal)	0.995 (8.3)
Water content, ppm, max	500
Molecular weight	310
Equivalent weight, min	153

Packaging and Storage

Not regulated for transport by US DOT

Typical Shelf life: 1 year

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