

Cost-Effective Alternative to Conventional Polyether and Polyester Polyols

INVISTA's TERRIN™ 168 polyol is a 100% aliphatic polyester polyol containing a minimum of 50% recycled content.⁽¹⁾ Due to its unique structure, TERRIN™ 168 polyol is an easily handled, low-viscosity liquid at room temperature and remains a pourable liquid at -15°C/5°F and below.⁽²⁾ It does not crystallize, but exhibits T_g at approximately -75°C.

TERRIN™ 168 polyol can be used in lieu of or in combination with polyether or polyester polyols to formulate a variety of polyurethane products. The resulting polyurethanes can be designed to be soft and flexible - or hard and stiff.

FEATURES AND BENEFITS

- Cost competitive in comparison to conventional polyols
- Have similar hydroxyl values to castor oil, and can be substituted on a nearly equal weight basis
- Supply of TERRIN™ polyols is not dependent on weather and planting cycles
- REACH and TSCA compliant

POLYURETHANES FROM TERRIN™ 168 POLYOL

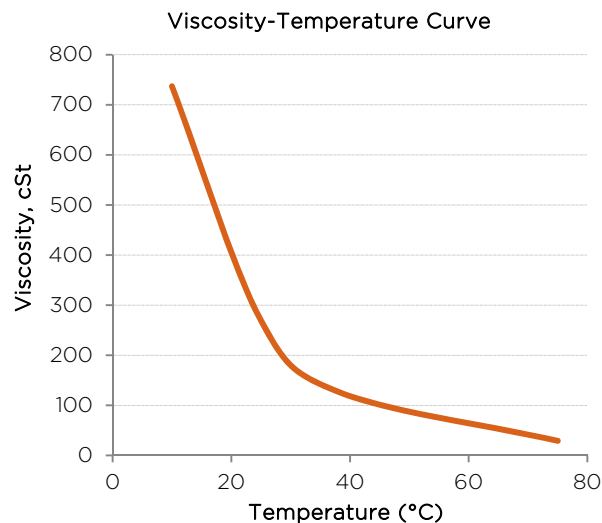
Formulation (105 isocyanate index)	T_g , °C	Hardness
One shot using PMDI ⁽³⁾	17	45 Shore A
One shot using PMDI with mixture of 93% polyol and 7% glycerine ⁽³⁾	56	68 Shore D

VISCOSITY

10°C/50°F	25°C/77°F	38°C/100°F	75°C/167°F
737 cSt	269 cSt	127 cSt	29 cSt

SPECIFICATIONS AND TYPICAL PROPERTIES

Hydroxyl number	160-180 mg KOH/g ⁽⁴⁾
Acid number	1.5 max mg KOH/g ⁽⁴⁾
Water, weight	0.1 max % ⁽⁴⁾
Density	1.1 g/cm ³ at 23°C
Equivalent weight	312-351 g
Hydroxyl type	Mainly primary
Viscosity	350 cP at 23°C typical
Average functionality	1.8 typical
Glass transition temp., T_g	-75°C typical
Recycled or renewable content, wt%	50% minimum
Color	Brown



SOLUTION VISCOSITY

Solvent	75% polyol	50% polyol
Toluene	34 cSt	7 cSt
DBE® - LVP ester	76 cSt	22 cSt
Propylene carbonate	92 cSt	24 cSt

(1) As defined by ISO 14021, Section 7.8; preliminary estimate based on small-scale production.

(2) Patents pending; Consult the MSDS for additional information

(3) Rubinate® M from Huntsman Corporation

(4) Property is included in the product specification



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For samples and further information please contact:
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