

HUNTSMAN TR 33260 TECHNICAL DATA SHEET

*INTRODUCTION

HUNTSMAN TR 33260 is a formulated polyol blend designed for the manufacturing of sandwich panels. A 5 component system consisting of HUNSTMAN ® TR 33260, a formulated additive, a catalyst blend, a blowing agent and an isocyanate, reacts under recommended processing conditions to produce polyurethane (PIR) foam. The resulting sandwich panel with a PIR foam core will obtain excellent results in a number of reaction and resistance to fire tests. If it is intended to use this product in different application, the nearest Huntsman Polyurethane Technical service Centre should be contacted to advice or HUAE

*PROCESSING RECCOMENDATION

The chemicals should be adjusted to the correct temperature before use to ensure reactivity and viscosity are suitable for processing. If in doubt, please contact nearest Huntsman technical Centre or HUAE

*STORAGE & HANDLING

HUNTSMAN TR 33260 is hygroscopic and should be protected from moisture by keeping containers sealed when not in use. Drums have to be stored indoors to protect the material from water ingress, frost and direct heat from the sun. Under temperate conditions and in properly sealed containers, the storage life of the polyol is 3 months at the customer. The optimum storage temperature should be 20 - 30°C.

*RISKS AVAILABLE

The isocyanate component irritates the respiration sytem, eyes and skin. This can have allergic reactions if inhaled or when comes in contact with skin. The required measurements indicated in the safety data sheet should be noted during handling of isocyanate. The same procedure should also be applied during handling of the A system (polyol) and Catalyst considering the risk available.

* TYPICAL PROPERTIES

Indicative typical properties of HUNTSMAN TR 33260 are:

Property	Value	Unit	Method
Physical state	Liquid		
Viscosity (20 °C)	1064	mPa.s	VIS-1
Viscosity (25 °C)	704	mPa.s	VIS-1
Density (20 °C)	1.18	g/cm ³	DEN-1
Density (25 °C)	1.17	g/cm ³	DEN-1
Water content	0.32	%	KARL FISHER
Flash point	130	°C	

*TYPICAL PROCESS PARAMETERS

	30 mm	100 mm	200 mm	240 mm	
HUNTSMAN TR 33260	100	100	100	100	Pbw
Catalyst Blend	4-6	2-3.5	1-2	0.5-1.5	Pbw
Formulated Additive	1.5-3	1.5-2.5	1-2	0.5-1.5	Pbw
Blowing Agent	11-14	10-13	9-12	9-12	Pbw
HUNTSMAN 600 (Isocyanate Component)	250-300	250-300	250-300	250-300	Pbw

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**P.O Box 16942 Jebel Ali Free Zone,
Dubai UAE**

A wide range of catalyst blends as well as formulated additives are available to adjust the process to customer requirements. Blowing agent is typically n-pentane though other alternatives are also possible.

Recommendations:

- Double belt temperature: > 60°C
- Chemicals temperature: 21-25°C
- Chemicals pressure: 140 - 170 bar
- Foaming portal: High pressure machine
- Steel treatment: corona treatment (min 3 KW - 12 A) and/or flame treatment
- Cooling cycle: requested for panel thickness above 80 mm
- Panel storage: at room temperature for 24 hrs
- Line speed: to be adjusted depending on conveyor length
- Pump outputs: to check whether they are suitable to guarantee the suggested mixing ratio

For further information contact your Huntsman representative.

* TYPICAL END PRODUCT PROPERTIES

Typical properties for a sandwich panel with a PIR foam core produced with HUNTSMAN TR 33260

Property	Value	Unit	Method
Applied overall density	40-45	kg/m ³	
Tensile strength	100-150	kPa	EN 1607
Compression strength	120-180	kPa	EN 826
Initial thermal conductivity (10 °C)	20-21.5	mW/m.K	EN 12667
4 point bending	90-120	kPa	EN 14509 A3
Closed cells content	> 90	%	ASTM D 2856

Reaction to Fire tests: national tests are harmonized under the EN14509. The Single Burning Item (SBI) test (EN

13823) is used as a reference. Classification obtained according to EN 13501-1:

- BS2d0 for panels with standard assembly (EN 13823)
- BS1d0 for panels with alternative assembly (EN 13823)
- E on naked foam (EN ISO 11925-2)

Classification obtained according to national test:

- V.3 on naked foam (SAV nr 241-242, Switzerland)
- B1 on panel (DIN 4102, Germany)
- B2 on naked foam (DIN 4102, Germany)
- M1 on panel (NFP 92507, France)

Resistance to Fire tests: panel assembling and joint type have a huge impact on the result of a resistance to fire test.

Classification obtained according to EN 13501-2:

- EI 20 for 80 mm wall panels (EN 1364-1)
- EI 30 for 100 mm wall panels (EN 1364-1)
- REI 30 for 100 mm roof panels (EN 1365-2)

Factory Mutual: measurement made with the 50 Kw FM Approvals Flammability Apparatus:

- FSPc < 0.39 s-½ (FM 4880 and FM 4881)

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