

Northstar Polymers MPC-W44A Polyurethane Gel

Category: Polymer, Renewable/Recycled Polymer, Thermoset, Polyurethane, TS, Thermoset Polyurethane, Elastomer, Unreinforced

Material Notes:

MPC-W44A is a polyurethane gel formulation specifically designed for padding and cushioning application that requires Shore Durometer 000 scale hardness. Produces good rebound characteristics and gradual compression deflection rates at the Shore 000 hardness range. This material contains bio-base renewable raw material. The concentration of the renewable material can be above 40% by weight depending on the mixing ratio. This may be classified as bio-base material in certain applications. The material does not contain any plasticizer, which is known to leach out to have adverse effects to the plastic film encapsulation materials used in conjunction with the polyurethane gel materials. This formula uses MPA-026 prepolymer, which has much lower viscosity than current standard 000 scale gel material MPP-W43C. Like other polyurethane gel formulations, this material is made in such way that the user can change the hardness and other physical property of cured part simply by changing the mixing ratio of the given components. This allows users to make variety products with just one combination of part-A and part-B components. The applications for this material include cushioning and padding parts for medical/semi-medical application, fiber optic cable encapsulation, novelty products, and many more.Information provided by Northstar Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Northstar-Polymers-MPC-W44A-Polyurethane-Gel.php

Processing Properties	Metric	English	Comments	
Processing Temperature	21.1 - 32.2 °C	70.0 - 90.0 °F	Prepolymer Temperature	
	21.1 - 32.2 °C	70.0 - 90.0 °F	Curing Agent Temperature	
Mold Temperature	21.1 - 32.2 °C	70.0 - 90.0 °F		
Cure Time	180 - 360 min	3.00 - 6.00 hour	De-mold Time	
	@Temperature 25.0 °C	@Temperature 77.0 °F		
	4320 - 7200 min	72.0 - 120 hour	Complete Cure Cycle	
	@Temperature 25.0 °C	@Temperature 77.0 °F		
Pot Life	10.0 - 15.0 min	10.0 - 15.0 min		

Descriptive Properties	Value	Comments
Curing Agent	PCA-054	
Prepolymer	MPA-026	
Weight Ratio	1:5.318	Prepolymer to Curing Agent Ratio, Shore Hardness 00 24
	1:5.724	Prepolymer to Curing Agent Ratio, Shore Hardness 00 14
	1:6.133	Prepolymer to Curing Agent Ratio, Shore Hardness 00 8
	1:6.133	Prepolymer to Curing Agent Ratio, Shore Hardness 000 74



Descriptive Properties	Value	Comments Frequencies to Curing Agent Ratio, Shore Hardness 000 70
	1:6.951	Prepolymer to Curing Agent Ratio, Shore Hardness 000 62
	1:7.360	Prepolymer to Curing Agent Ratio, Shore Hardness 000 54
	1:7.769	Prepolymer to Curing Agent Ratio, Shore Hardness 000 38
	1:8.178	Prepolymer to Curing Agent Ratio, Shore Hardness 000 31-34

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