

polyurethane elastomer

ALFONSO[®] UC-303 is a polyurethane prepolymer based on TDI-PTMEG system with high tear strength, high modulus and resistance to hydrolysis. Its limited viscosity grants a good operability and ensures a even mixture with the curatives. Cost-effective and widely applied in ceramic tile punch, hydraulic seal and synchronous belt manufacture.

ALFONSO[®]UC-303 Prepolymer Characteristics

Property	Unit	Value
NCO	%	6.30±0.1
Viscosity at 70 °C	Mpa.s	370±50
Viscosity at 30 °C	Mpa.s	3500±50
Specific Gravity at 25 °C	cm ³	1.05
Operating Temperature	°C	70±5
Pot Life	min	4-5
Demould at	min/°C	30/100
Post Cure	Hour/°C	16/100

© Alfonso are registered trademarks of the Winsin.
© Winsin 2016

The contents of the publication are the copyright of the publisher and may not be reproduced (even extracts) unless prior written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.



polyurethane elastomer

Curative Info

Type	Mixing Temperature	Mixing Ratio A:B
MBCA	120°C	100: 18
Ethacure 300	40°C	100: 14.6

ALFONSO[®] UC-908 Physical Properties

Property	Unit	Value	Standard
Durometer Hardness	Shore A	95±2	DIN 53505
100% Modulus	N/mm ²	12	DIN 53504
300% Modulus	N/mm ²	21	DIN 53504
Elongation at Break	%	400	DIN 53504
Tensile Strength	N/mm ²	48	DIN 53504
70°C/24h,20% Compression Set	%	29	DIN 53517
Tear Strength	N/mm ²	130	DIN 53515
Rebound Resilience	%	41	DIN 53512
Abrasion	mm ³	28	DIN 53516
Cured Density	g/cm ³	1.13	DIN 53479

*Values shown above are acquired from samples prepared only for testing purposes.

© Alfonso are registered trademarks of the Winsin.
© Winsin 2016

The contents of the publication are the copyright of the publisher and may not be reproduced (even extracts) unless prior written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.



polyurethane elastomer

Notice

Storage & Handling

ALFONSO[®] UC-303 prepolymer should be stored in cool, well ventilated and rainproof environments.

High storage temperature may reduce its shelf life.

When exposed to the air, certain reactions may occur and this can be harmful to the prepolymer. If a barrel is not consumed up at a time, the barrel with remained prepolymers should be sealed with care and it's recommended to fill the barrel with dry nitrogen for protection.

The prepolymer will increase in viscosity and eventually solidify at low temperature, and need heating to be poured out from the barrel. It is not recommended to heat the barrel with electric heating bars or electric hot plates because these equipment may cause uneven heating on some spots thus lead to material decomposition in these spots. Recommended temperature for melting UC-303 is 70°C.

The prepolymer will only be ready for curing when it's completely melted and heated to reaction temperature, because solid phase of the prepolymer can cause undermixing with curatives and results in flaws in the finished products.

Health Hazard

ALFONSO[®] UC-303 contains a small amount of free toluene diisocyanate (TDI) which is a known hazardous substance and may cause severe irritation to the eyes, skin and mucous membranes.

Operate only with proper ventilation to avoid inhalation of vapor. Avoid contact with eyes, skin and clothing and wash thoroughly after handling. For further information, please refer to the Material Safety

Data Sheet (MSDS).

© Alfonso are registered trademarks of the Winsin.
© Winsin 2016

The contents of the publication are the copyright of the publisher and may not be reproduced (even extracts) unless prior written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.

