

ELASTOSIL[®] R plus 4305/70 US



High Consistency Silicone Rubber (HCR)

ELASTOSIL[®] R plus 4305/70 US HCR silicone rubbers are addition-curing, two part compounds (batch grades). The vulcanizates show excellent transparency and good to very good mechanical properties. Properly postcured vulcanizates of ELASTOSIL[®] R plus 4305/70 US comply with BfR and FDA food contact regulations. The material also passes USP XXIII Class VI.

Technical data

Properties Cured

Properties obtained after mixing ELASTOSIL® plus 4305/70 and Curing Agent PT 1 in a ratio of 100: 1.5; press cured 15 min/165 °C in vented air.

Property	Condition	Value	Method
Appearance	-	transparent	IRM 901
Specific gravity	25 °C	1.17 g/cm ³	DIN EN ISO 1183-1 A
Hardness Shore A	-	70	ASTM D 2240
Tensile strength	-	1376 psi	-
Tensile strength	-	9.5 mPa	-
Elongation at break	-	650 %	ASTM D 412
Tear strength	-	262 pli	-
Tear strength	-	46 kN/m	-
Compression Set ⁽¹⁾	22 h 175 °C	20 %	DIN ISO 815-B
Pot life	-	24 h	WSTM 2299
USP XXIII, Class VI	-	Passed	-

¹Cure conditions: 15 min / 165 °C in press, postcuring for 6 h / 200 °C in ventilated air.

These figures are only intended as a guide and should not be used in preparing specifications.

All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product's fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties' rights.

Application details

ELASTOSIL® R plus 4305/70 US is intended for fabrication of extruded articles that afford high transparency and very good tear resistance values.

Processing

ELASTOSIL® R plus 4305/70 US may not be cured with peroxides, only with the catalyst batch ELASTOSIL® AUX PT1.

ELASTOSIL® R plus 4305/70 US and Curing Agent PT 1 are mixed homogeneously on a roll mill in a ratio of 100 : 1.5. Care must be taken to keep the mill and compound as cool as possible during mixing.

The temperature of the rubber should not exceed 35°C or risk partial curing and reduced pot life.

Crosslinking begins when Curing Agent PT 1 has been added. The rate and degree of crosslinking depends on the storage time and temperature.

At 23°C, the mixture has a pot life of about 24 hours. This can be extended by storing the catalyzed mixture at a lower temperature.

Packaging and storage

Storage

The "Best use before end date" of each batch is shown on the Certificate of Analysis. Storage beyond the date specified on the Certificate of Analysis does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons. ELASTOSIL® R plus 4305/70 US should be stored at less than 25°C in the originally sealed container.

Safety notes

For specific information regarding safe handling of this material, please refer to the Safety Data Sheet.

QR Code ELASTOSIL® R plus 4305/70 US



For technical, quality or product safety questions, please contact:

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