

ELASTOSIL® R plus 4001

One part platinum catalyzed solid silicone rubber for molding standard grade

Characteristics

HTV silicone rubbers of the ELASTOSIL® R plus 4001 series are addition-curing, one-component compounds for the manufacture of press cured articles. The vulcanizates show excellent transparency and good to very good mechanical properties. No peroxide split products are released during cure or post cure. Cure system is significantly faster compared to peroxide curing materials. Properly postcured vulcanizates of ELASTOSIL® R plus 4001 comply with BfR and FDA food contact regulations.

Cure time is reduced to 30 - 50 % depending on the wall thickness.

Special Characteristics

- Easy demolding
- Dry surface
- No unpleasant smell caused by peroxides
- No inhibition by oxygen

Application

The grade is suitable for the manufacture of molded articles of all kind including technical or medical purposes. Specially thick walled articles can take advantage of the fast curing material.

Processing

ELASTOSIL® R plus 4001 is to be press cured. The material can be processed on conventional silicone rubber injection molding equipment.

Caution, danger of de-activation!
The Pt-catalyst can be de-activated already via air e.g. by amines or sulphur compounds in th air.

Storage

ELASTOSIL® R plus 4001 should be stored at 25 °C in the originally sealed container. Storage at higher temperatures decreases pot life. The 'Best use before end' date of each batch appears on the product label.

Storage beyond the date specified on the label 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.

Safety information

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from Wacker subsidiaries.

Product data (postcured)

Property	Test method	Unit	ELASTOSIL® R plus 4001			
Hardness Shore A	DIN 53 505		30	40	50	55
Appearance			Transparent	Transparent	Transparent	Transparent
Specific gravity	DIN EN ISO 1183-1 A	[g/cm ³]	1.11	1.12	1.12	1.14
Tensile strength	DIN 53 504 S 1	[N/mm ²]	10.0	11.0	11.0	10.5
Elongation at break	DIN 53 504 S 1	[%]	1,000	940	800	730
Tear resistance	ASTM D 624 B	[N/mm]	40	27	32	31
Impact resilience	DIN 53 512	[%]	47	52	55	57
Compression set	DIN ISO 815-B (22 h / 175 °C)	[%]	35	22	18	35

Cure conditions 15 min / 165 °C in press, postcuring for 4 h / 200 °C in ventilated air.

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

Product data (postcured)

Property	Test method	Unit	ELASTOSIL® R plus 4001		
			60	70	80
Hardness Shore A	DIN 53 505		60	70	80
Appearance			Transparent	Transparent	Transparent
Specific gravity	DIN EN ISO 1183-1 A	[g/cm³]	1.14	1.16	1.18
Tensile strength	DIN 53 504 S 1	[N/mm²]	10.7	9.5	7.0
Elongation at break	DIN 53 504 S 1	[%]	685	650	400
Tear resistance	ASTM D 624 B	[N/mm]	28	27	17
Impact resilience	DIN 53 512	[%]	59	60	62
Compression set	DIN ISO 815-B (22 h / 175 °C)	[%]	19	35	< 25

Cure conditions 15 min / 165 °C in press, postcuring for 4 h / 200 °C in ventilated air.

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

The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose.

The management system has been certified according to DIN EN ISO 9001 and DIN EN ISO 14001



and ELASTOSIL® are registered trademarks of Wacker Chemie AG.

Version 5.00 from 10-08-07 replaces Version 4.20 from 25-05-07

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

Wacker Chemie AG
WACKER SILICONES
Hanns-Seidel-Platz 4
D-81737 Munich, Germany

www.wacker.com
info.silicones@wacker.com