

ELASTOSIL® R PLUS 4350/55

# BENCHMARK IN HEAT RESISTANCE

## New Addition Curing Silicone Elastomer for Extrusion

**ELASTOSIL® R plus 4350/55 is a 2-component addition curing high consistency silicone rubber designed for extrusion. Vulcanizates show excellent heat resistance up to 300 °C after addition of heat stabilizers of the series ELASTOSIL® AUX STABILIZER H.**

ELASTOSIL® R plus 4350/55 is the new benchmark in heat resistance addition curing silicone elastomers. The material is formulated without a specific heat-stabilizer and leaves the choice to the processor. This allows for customized formulation to cover a maximum range of applications and requirements. When formulated with a proper heat stabilizer of

the series ELASTOSIL® AUX STABILIZER H, it is even possible to obtain materials that are resistant to temperatures up to 300 °C and at the same time meet the requirements of common regulations for sensitive applications like Recommendation XV. Silicones of BfR and FDA CFR 21 § 177.2600 "Rubber articles intended for repeated use" when post-cured properly.

ELASTOSIL® R plus 4350/55 is usually mixed with 1.5% ELASTOSIL® AUX BATCH PT 1 and 1.5 – 3.0% of ELASTOSIL® AUX STABILIZER H on a two-roller mill to obtain a reactive and heat stabilized compound. It may thereafter be processed on standard extruders

suitable for silicone extrusion. The curing is usually done in hot-air heating channels at temperatures above 200 °C or in specific infrared channels.

**Special Characteristics:**

- Excellent long term heat resistance up to 300 °C when combined with heat stabilizers of the series ELASTOSIL® AUX STABILIZER H
- Suitable for sensitive applications (compliant with positive lists of Recommendation XV. Silicones of BfR and FDA CFR 21 § 177.2600 "Rubber articles intended for repeated use")
- Addition curing 2-component system
- Designed for extrusion

Product Information R plus 4350/55	Test Method	Unit	Value
Hardness Shore A	ISO 7619-1	No unit	55
Appearance			Translucent
Mixing ratio base + ELASTOSIL® BATCH PT 1			100 : 1.5
Specific gravity	DIN EN ISO 1183-A	[g/cm <sup>3</sup> ]	1.13
Tensile strength	ISO 37 Type 1	[N/mm <sup>2</sup> ]	7.9
Elongation at break	ISO 37 Type 1	[%]	400%
Tear resistance	ASTM D 624 B	[N/mm]	20
Rebound resiliency	ISO 4662	[%]	63
Compression Set (175 °C/22h)	DIN ISO 815-B	[%]	6

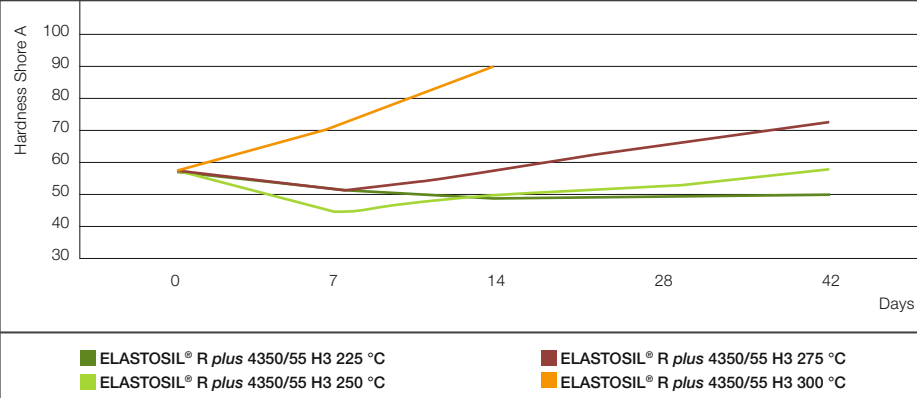
Cure conditions: 15 min/165 °C in press; post curing: 4h/200 °C

ELASTOSIL® AUX STABILIZER H	Maximum recommended service temperature	Color	BfR XV.	FDA CFR 21 § 177.2600
H1	275 °C	Red-brown	+ <sup>1)</sup>	+ <sup>1)</sup>
H2	300 °C	Beige	-	-
H3	300 °C	Black	+ <sup>1)</sup>	+ <sup>1)</sup>

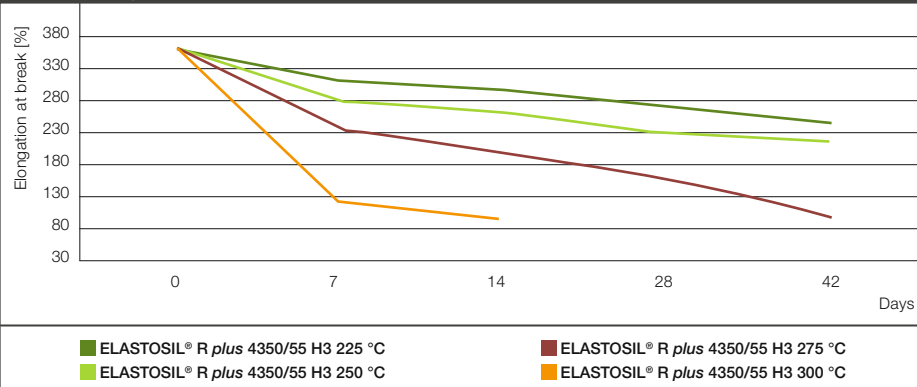
<sup>1)</sup> When post-cured properly, recommendation: 4h/200 °C for 2mm thickness



**ELASTOSIL® R plus 4350/55: Evolution of Hardness Shore A During Heat Ageing at Various Temperatures**



**ELASTOSIL® R plus 4350/55: Evolution of Elongation at Break During Heat Ageing at Various Temperatures**



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