

RHODORSIL® AD 744

Heat stability

Description **RHODORSIL AD 744** is a particularly effective heat stabiliser for heat cure silicones. It protects cured compounds to a temperature of 250 °C for prolonged periods.

Appearance Red translucent paste

Fields of application **RHODORSIL AD 744** is added to HCR's on a 2-roll mill. Doses of 0.3 to 0.5 % by weight with respect to the HCR pre-catalysed compound have a very pronounced effect on the heat stability of silicone elastomers, up to a temperature of 250 °C.

Comments

*With transparent HCR compounds **RHODORSIL AD 744** can cause slight yellowing.*

*Improving the heat stability of MF 135 U and MF 175 U by adding **RHODORSIL AD 744**.*

For example, the table below gives the change in mechanical properties for MF 135 U and MF 175 U with and without the addition of **RHODORSIL AD 744**, under various heat ageing conditions.

These properties are obtained after adding 2-4 dichloro benzoyl peroxide with 50 % active ingredients (Peroxide E) and curing for 8 minutes at 115 °C.

MF 135 U	100	100	0	0
MF 175 U	0	0	100	100
Peroxide E	1.1	1.1	1.25	1.25
AD 744	0	0.3	0	0.3

Properties after post-curing for 4 hours at 200 °C

Shore A hardness	40	40	70	70
Tensile strength MPa	7.1	7	9.5	9.7
Elongation at break %	390	400	280	310
Modulus at 100 %, MPa	0.8	0.7	2.7	2.6
Modulus at 300 %, MPa	3.5	3.3	-	-
Tear strength, kN/m	21	21	21	21
Résilience, %	50	51	43	40

RHODORSIL® AD 744**Nature and general uses***Properties after heat ageing for 3 days at 225 °C*

Shore A hardness	46	44	80	78
Tensile strength, MPa	5.8	6.2	6.2	6.4
Elongation at break, %	250	290	120	200

Properties after heat ageing for 7 days at 250 °C

Shore A hardness	B	44	B	81
Tensile strength, MPa	-	5	-	5.3
Elongation at break, %	-	230	-	170

B: Brittle

Packaging**RHODORSIL AD 744** is available in 20 kg plastic drums.**Storage and shelf life**

RHODORSIL AD 744 may be stored in its original packaging at temperature below 30 °C for up to 18 months from the date of manufacture marked clearly on the packaging.

Past this date, Bluestar Silicones no longer guarantees that the product meets the sales specifications.

SafetyConsult the Safety Data Sheet for **RHODORSIL AD 744**.Visit our website www.bluestarsilicones.com**EUROPE**

Bluestar Silicones France
21 Avenue Georges
Pompidou
F69486 Lyon Cedex 03
FRANCE
Tel. (33) 4 72 13 19 00
Fax (33) 4 72 13 19 88

NORTH AMERICA

Bluestar Silicones USA
2 Tower Center
Boulevard
Suite 1601
East Brunswick, NJ
08816-1100
United States
Tel. (1) 732 227-2060
Fax. (1) 732 249-7000

LATIN AMERICA

Bluestar Silicones
Brazil Ltda.
Av. Maria Coelho
Aguir, 215
Bloco G - 1º andar
05804-902-Sao Paulo -
SP- Brazil
Tel. (55) 11 37477887

ASIA PACIFIC

Bluestar Silicones Hong
Kong
Trading Co. Ltd
29th Floor, 88 Hing Fat
Street
Causeway Bay
Hong Kong
Tel. (852) 3106 8200
Fax (852) 2979 0241

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