

BLUESIL™
FR 8700 U SERIES

Specialties Product

Description Heat cure rubber **BLUESIL FR 8700 U SERIES** are silicone rubbers which cure after addition of a vulcanising agent (chosen as a function of the production process).

BLUESIL FR 8700 U SERIES is available in three hardnesses: 50, 60 and 75 Shore A.

That series is specially designed to manufacture rubber parts for fire resistance applications.

Example of applications Production of profiles (doors, windows, walls) and panels used in rolling stocks, and any flexible moulded articles which need to combine high fire performances with low smoke emission.

- Advantages**
- Easy processing.
 - Good heat stability up to 200°C.
 - Excellent fire resistance.
 - LSFOH: Low Smoke Free Of Halogen.
 - Non toxic and non corrosive smokes.
 - Tested according to EN 45545 Part 2 (fire protection of railway vehicles).

Characteristics**1. Mechanical properties**

After addition of 1.25% dichloro-2,4 benzoyl peroxide (at 50%) and vulcanization for 8 min at 115°C

Values measured on 2 mm thickness ASTM slab after post curing for 4 hours at 200°C

Properties	FR 8750 U	FR 8760 U	FR 8775 U
Specific gravity (at 25°C, approx.)	1.24	1.43	1.28
Natural colour	creamy	creamy	creamy
Shore A Hardness (approx.)	51	58	73
Tensile strength (MPa approx.)	8.6	6.7	10.2
Elongation at break (% , approx.)	460	430	320
Tear strength (kN/m, approx.)	15	21	19
Volume resistivity (IEC 60093, Ohm.cm, approx.)	6.7 10 ¹⁵	1.8 10 ¹⁵	8.1 10 ¹⁵
Dielectric constant (IEC 60250, at 1 MHz, approx.)	2.9	3.1	3.0
Dielectric dissipation factor (IEC 60250, at 1 MHz, approx.)	3.9 10 ⁻³	3 10 ⁻³	3 10 ⁻³

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Characteristics (cont') 2. Fire resistance

On slabs of thickness 3 mm post cured for 4 hours at 200°C:

IEC 60695-11-10	FR 8750 U	FR 8760 U	FR 8775 U
Classification	V0	V0	V0

On slabs of thickness 2 mm post cured for 4 hours at 200°C:

EN 45 545 Part 2	FR 8750 U	FR 8760 U	FR 8775 U
Classification	R1 HL2 R7 HL2	R1 HL3 R7 HL3	R1 HL2 R7 HL2

Additional classification for **BLUESIL FR 8775 U**:

- NF 16 101: Class I2 F0
- BS 6853: Category A1 and LOI of 37%.

Packaging Master batches of **BLUESIL FR 8700 U SERIES** are delivered in 500 kg containers

Storage and shelf-life When stored in their original packaging at a temperature below +40°C, Master batches of **BLUESIL FR 8700 U SERIES** may be stored for up to 12 months from their date of manufacture.

Comply with the storage instructions and expiry date marked on the packaging.

Beyond this date, Bluestar Silicones no longer guarantees that the products meet the sales specifications.

Safety Please consult the Safety Data Sheets of master batches **BLUESIL FR 8700 U SERIES**.

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 Aguiar, 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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