

expansil™

Silicone Sponge Extrusions

FR400

Silicone
Engineering Ltd

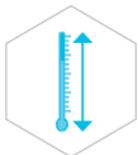
The expansil™FR range is a flame retardant, closed cell silicone sponge, ideal for extrusions.

Formulated for use in extreme temperature applications where additional flame resistance is required.

expansil™FR range is commonly used for joined gaskets, gap fillers and flexible sealing solutions.



BENEFITS



Temperature range

-60°C to 230°C
(-76°F to 446°F)



Environmental resistance

Ozone, UV and weather resistant



Flame retardant

UL94V1
FAR 25/JAR 25



Long life service

vs
other elastomers

AVAILABILITY

Tubes, Cords, Profiles, Strips & Sections

Pressure Sensitive Adhesive (PSA)

Joined Rings & Gaskets

Standard Colours: Black, White, Grey and Natural

ACCREDITATIONS

UL94V1

UL94 V1 Flammability Test (Not Listed)

FMVSS 302

Federal Motor Vehicle Safety Standard

FAR 25
(Vertical)

Flame Test for Aerospace Applications

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MECHANICAL PROPERTIES

Property	Units	Typical Value	Test Method
Density (*Measured on 25mm cord sample)	kg/m ³ (lb/ft ³)	400 (25)	ISO 845
Hardness	Shore OO (Sh A)	55.7 (13.6)	ASTM D2240
Compression Force Deflection 40%	KPa (psi)	125 (8.7)	ISO 3386
Tensile Strength	MPa (psi)	0.60 (87)	ISO 1798
Elongation to Failure	%	183.5	ISO 1798
Compression Set 50%, 24hrs recovery, 22hrs @ 70°C	%	1.38	ISO 1856
Compression Set 50%, 24hrs recovery, 22hrs @ 100°C	%	3.79	ASTM D1056
Water Absorption	%	< 5	ASTM D1056

CAPABILITIES

Thickness mm (inches)

Width mm (inches)

Length m (ft)

GENERAL CHARACTERISTICS

Test	Typical Value	Standard
Brittle Point	-80°C (112°F)	ASTM D746
Limiting Oxygen Index	24%	BS 2782 Part 1
Thermal Conductivity	6.4x10 ⁻² W.m ⁻¹ .K ⁻¹	BS 874 Part 2
Radiation Resistance	>10 ⁵ Grays (10 ⁷ Rads) typical	

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