

expansil™

Sponge Extrusion Flame Retardant

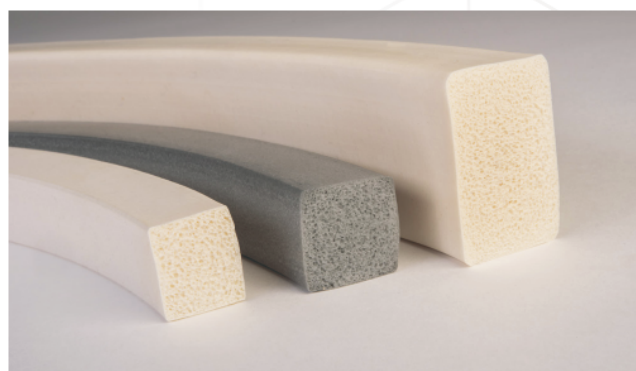
V-0 Firm

Silicone
Engineering Ltd

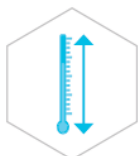
expansil™V-0 Firm is a flame retardant, closed cell silicone sponge.

Formulated for use in applications where high flame resistance and low smoke toxicity is critical such as Mass Transit, Aerospace, Automotive/EV and Electronic sectors.

expansil™V-0 is commonly used as sealing profiles.



BENEFITS



Temperature range

-60°C to 230°C
(-76°F to 446°F)



Environmental resistance

Ozone, UV and weather resistant



Flame retardant

UL94V0
(>1.5mm)



Long life service

vs
other elastomers

AVAILABILITY

Cords, Profiles, Strips & Sections
Pressure Sensitive Adhesive (PSA)
Joined Rings & Gaskets
Standard Colour: Grey

ACCREDITATIONS

UL94V0

UL94 Vertical Burn
Flammability Test

EN45545-2

European Railway
Standard for Fire Safety

NFPA 130

US Standard for Transit
and Passenger Rail
Systems

**Airbus
ABD0031**

Airbus Fire Test for
Aircraft Materials

Capable of meeting: ASTM D1056 2A5 and 2D5, ASTM D6576 Grades B & C (Firm)

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MECHANICAL PROPERTIES

Property	Units	Typical Value	Test Method
Density (*Measured on 12.7mm sheet)	kg/m ³ (lb/ft ³)	570 (35.6)	ISO 845 (ASTM D1056)
Compression Force Deflection 25% Strain	KPa (psi)	150 (21.8)	ASTM D1056
Compression Force Deflection 40% Strain	KPa (psi)	335 (48.6)	ISO 3386 part 1,2
Tensile Strength	MPa (psi)	830 (120)	ISO 1798 ASTM D412
Elongation to Failure	%	90	ISO 1798 ASTM D412
Compression Set 50%, 24hrs recovery, 22hrs @70°C	%	< 1	ISO 1856
Compression Set 50%, 24hrs recovery, 22hrs @100°C	%	2	ISO 1856
Thermal Conductivity	W/m.K	0.171	DIN EN993-15
Water Absorption	%	< 2	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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