

# expansil™

## Sponge Extrusion Flame Retardant

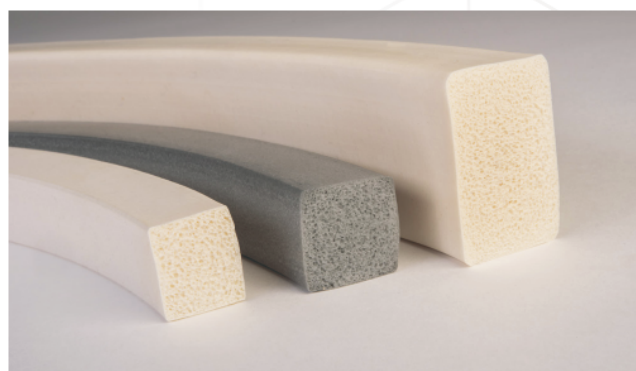
**V-0 Medium**

**Silicone**  
Engineering Ltd

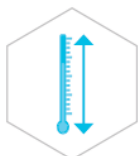
expansil™V-0 Medium is a medium density, flame retardant, closed cell silicone sponge.

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 2A3 and 2D3, ASTM D6576 Grades B & C (Medium)

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## Sponge Extrusion Flame Retardant

V-0 Medium



### MECHANICAL PROPERTIES

Property	Units	Typical Value	Test Method
Density (*Measured on 12.7mm sheet)	kg/m <sup>3</sup> (lb/ft <sup>3</sup> )	390 (24.3)	ISO 845 (ASTM D1056)
Compression Force Deflection 25% Strain	KPa (psi)	62 (9.0)	ASTM D1056
Compression Force Deflection 40% Strain	KPa (psi)	140 (20.3)	ISO 3386 part 1,2
Tensile Strength	MPa (psi)	445 (64.3)	ISO 1798 ASTM D412
Elongation to Failure	%	100	ISO 1798 ASTM D412
Compression Set 50%, 24hrs recovery, 22hrs @70°C	%	< 1	ISO 1856
Compression Set 50%, 24hrs recovery, 22hrs @100°C	%	3	ISO 1856
Thermal Conductivity	W/m.K	0.118	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 <sup>-2</sup> W.m <sup>-1</sup> .K <sup>-1</sup>	BS 874 Part 2
Radiation Resistance	>10 <sup>5</sup> Grays (10 <sup>7</sup> Rads) typical	

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