

# expansil™

## Silicone Sponge Extrusions

AFS250

Silicone  
Engineering Ltd

suraSil™AFS has been specially formulated to meet the Ministry of Defence AFS 1682A specification and the related MSRR 9481 Rolls Royce specification.

Commonly used as high temperature seals, profiles and joined rings, where low compression set is required in Aerospace and Defence sectors.



### BENEFITS



#### Temperature range

-60°C to 230°C  
(-76°F to 446°F)



#### Environmental resistance

Ozone, UV and weather resistant



#### Flame retardant

UL94HB  
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

UL94HB

UL94 Horizontal Burn  
Flammability Test  
(Not Listed)

FMVSS 302

Federal Motor Vehicle  
Safety Standard

FAR 25/  
JAR 25

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 <sup>3</sup> (lb/ft <sup>3</sup> )	250 (15.6)	ISO 845
Compression Force Deflection (CFD) 40%	KPa (psi)	80 (11.6)	ISO 3386 Part 1, 2
Tensile Strength	MPa (psi)	1.3 (189)	ISO 1798
Compression Set 25%, 72hrs @ 150°C, 48hrs recovery	%	3	ISO 1856
Compression Set (As Above) after Heat Age, 168hrs @ 150°C	%	2	ISO 1856
CFD 40%, after Heat Age for 168hrs @ 150°C	KPa (psi)	80 (11.6)	ISO 3386 Part 1, 2
Elongation	%	200	ISO 1798

### CAPABILITIES

Thickness mm (inches)	Width mm (inches)	Length m (ft)
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### 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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