

expansil™

Silicone Sponge Extrusions

GP450

Silicone
Engineering Ltd

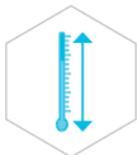
The expansil™GP range is a general purpose, closed cell silicone sponge, ideal for extrusions.

Formulated for use in extreme temperature applications and where environmental resistance is needed.

expansil™GP 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

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, RIOX and Grey

ACCREDITATIONS

UL94HB

UL94 Horizontal Burn Flammability Test (Not Listed)

FMVSS 302

Federal Motor Vehicle Safety Standard

FAR 25 (Horizontal)

Flame Test for Aerospace Applications

WRAS Approved
N° 2311550

Water Regulations Advisory Scheme

Capable of meeting: ASTM D1056 2A4; AMS3196; ASTM 6576 Grades A, B & C (Medium-firm)

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MECHANICAL PROPERTIES

Property	Units	Typical Value	Test Method
Density (*Measured on 25mm cord sample)	kg/m ³ (lb/ft ³)	450 (28)	ISO 845
Hardness	Shore OO (Sh A)	70 (24)	ASTM D2240
Compression Force Deflection 40%	KPa (psi)	230 (34)	ISO 3386
Compression Force Deflection 25%	KPa (psi)	105 (15)	ASTM D1056
Tensile Strength	MPa (psi)	1.5 (217)	ISO 1798
Elongation to Failure	%	130	ISO 1798
Compression Set 50%, 24hrs recovery, 22hrs @ 70°C	%	3.0	ISO 1856
Compression Set 50%, 24hrs recovery, 22hrs @ 100°C	%	4.3	ISO 1856
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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