

expanSil™

Silicone Sponge Extrusions

US2D1

Silicone
Engineering Ltd

The expanSil™ US2D range has been formulated to meet the requirements of ASTM D1056 2D1, 2D2 and 2D3.

With its extreme temperature resistance, closed cell structure and low compression set, expanSil™ US2D range is commonly used in Aerospace and Defense sectors. Ideal for use as sealing profiles, cords and joined rings.



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, USA Red and RIOX

ACCREDITATIONS

UL94HB

UL94 Horizontal Burn
Flammability Test
(Not Listed)

FMVSS 302

Federal Motor Vehicle
Safety Standard

FAR 25
(Horizontal)

Flame Test for Aerospace
Applications

Other accreditations: REACH, RoHS and Prop 65 Compliant

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MECHANICAL PROPERTIES

Property	Units	Typical Value	Test Method
Density (*Measured on 25mm cord sample)	lb/ft ³	13.0	ASTM D3574
Compression Force Deflection (CFD)	psi	3.6	ASTM D1056
Compression Set 50%, 24hrs recovery, 22hrs @ 212°F	%	5.5	ASTM D1056
CFD (above) Change after heat age 22hrs @ 302°F	%	2	ASTM D1056
Water Absorption	%	3	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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