

# expansil™

## Silicone Sponge Extrusions

US2D2

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 <sup>3</sup>	19.0	ASTM D3574
Compression Force Deflection (CFD)	psi	7.8	ASTM D1056
Compression Set 50%, 24hrs recovery, 22hrs @ 212°F	%	2.6	ASTM D1056
CFD (above) Change after heat age 22hrs @ 302°F	%	1.5	ASTM D1056
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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