

S70H

White, peroxide-cured, silicone rubber

Description

S70H is a silicone rubber that provides excellent heat resistance and low temperature flexibility (non-brittle at -60°C after 3 minutes).

Used primarily for sealing components in dry heat, static applications due to its low physical strength and poor abrasion resistance, which prevent its use for dynamic sealing environments.

S70H is ideal for use in food, dairy and pharmaceutical equipment and can be moulded into O-rings and custom shaped components.

Key Attributes

- ▶ Compliant with FDA CFR210177.2600 for use with dry, aqueous and fatty food stuffs
- ▶ Conforms to USP class VI suffix 87 and 88, Biological Reactivity tests
- ▶ 3A Sanitary Standard 18-03 Class 1 compliant
- ▶ EC1935/2004 and EC2023/2006 compliant
- ▶ Good mechanical and physical properties
- ▶ Free from Animal Derived Ingredients (ADI)

Typical Applications

- ▶ Food processing and packaging equipment
- ▶ Beverage dispensers and appliances
- ▶ Pharmaceutical and biomedical apparatus
- ▶ Hygienic seals in dairy equipment
- ▶ Potable and high-purity water applications

Other materials in the range

S71U Platinum-cured translucent silicone (FDA & USP)

S80U Platinum-cured translucent silicone (FDA, 3A & USP)

XS7H Detectaseal® metal detectable silicone (FDA & USP)



Typical Material Properties

Property	ASTM	ISO	Value
Material Type	VMQ	VMQ	
Colour			White
Hardness: (°IRHD)	D1415	ISO48	70
Tensile Strength (MPa)	D412	ISO37	7.0
Elongation at break (%)	D412	ISO37	280
Compression Set: 24 hrs @ 70°C (158°F)	D395	ISO815	20%
Minimum Operating Temperature			-60°C (-76°F)
Maximum Operating Temperature			+250°C (+482°F)
Heat Ageing: 168 hrs @70°C (158°F)			
Hardness change (points)	D1415	ISO48	±5 RHD
Tensile strength change	D412	ISO37	±20%
Elongation at break change	D412	ISO37	±30%

SPECIAL NOTE: This information is to the best of our knowledge accurate and reliable. However, PPE Ltd makes no warranty, expressed or implied, that parts manufactured from this material will perform satisfactorily in the customer's application. It is the customer's responsibility to evaluate parts prior to use, especially in applications where their failure may result in injury and/or damage. It should also be noted that all elastomeric parts have a finite life, therefore a regular program of inspection and replacement is strongly recommended. In non-black grades of elastomer, it is possible to observe slight variations in colour. This is normal and is inherent in the part; it is not indicative of foreign matter. These colour variations are not expected to adversely affect the performance of the part. The material properties above should not be used for specification purposes.

FDA Extraction test results			
Media	Extraction test	Authorised limits mg/sq.inch	S70H test result
Boiling water	First 7 hours	20	0.1, 0.7
	2 succeeding hrs	1	<0.1, 0.2
n-Hexane	First 7 hours	175	16.2, 16.8
	2 succeeding hrs	4	0.6, 0.6



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