

# Precision Polymer S80U

Silicone

Precision Polymer Engineering Ltd.

## Message:

S80U is a high transparency grade of silicone rubber intended for use in food, dairy, brewing, potable water, pharmaceutical and biomedical applications. Platinum-cured silicone is odourless, tasteless and non toxic. Seals made from S80U are resistant to repeated sterilising, autoclaving and cleaning agents commonly used in these industries.

Unlike traditional peroxide-cure methods, platinum curing results in a smooth contact surface finish and a high degree of purity. No residue substances such as benzoic acid, peroxides, ketones are produced during manufacturing, which can be transferred from the seal to critical hygienic products.

### Key Attributes

- FDA compliant - extraction tested to CFR 21 § 177.2600(e,f)
- USP Class VI <88> and USP <87> compliant
- 3A Sanitary Standard 18-03 Class 1 compliant.
- Formulated to BS2494 Type 'W' and (Water Regulations Advisory Scheme WRAS - formerly Water Research Council WRC) in accordance with BS6920.
- Approval No. 0005509.

BGV XV compliant.

Good mechanical and physical properties

Chemically stable over a temperature range of -60°C to +200°C.

Withstands sterilizing and autoclaving procedures

Free from Animal Derived Ingredients (ADI)

### Typical Applications

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

General Information	
Features	High purity
	Good disinfection
	High pressure heating resistance
	The smell is low to none
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	Compliance of Food Exposure
	No kinetic components
	Non-toxic
	Excellent appearance
Uses	Packaging
	Non-specific food applications
	Seals
	Food packaging
	Bathroom products
	Drug
	Medical/nursing supplies
Agency Ratings	Potable water application
	FDA 21 CFR 177.2600

Appearance	Translucent		
Hardness	Nominal Value	Test Method	
IRHD Hardness	78	ASTM D1415, ISO 48	
Elastomers	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	8.50	MPa	ASTM D412, ISO 37
Tensile Elongation (Break)	480	%	ASTM D412, ISO 37
Compression Set (175°C, 22 hr)	32	%	ASTM D395, ISO 815
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air (200°C, 168 hr)	10	%	ASTM D412, ISO 37
Change in Ultimate Elongation in Air (200°C, 168 hr)	-1.5	%	ASTM D412, ISO 37
Change in IRHD Hardness in Air (200°C, 168 hr)	5.0		ASTM D573, ISO 188
Thermal	Nominal Value	Unit	
Maximum Operating Temperature	250	°C	
Additional Information			

Minimum Operating Temperature: -60°C (-76°F)

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