



*uki is one of Europe's largest suppliers of electrical insulation materials and flexible films*

**UK Insulations  
Product Information**

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## **Silicone Elastomer Glass**

**Composition:**

Silicone Elastomer Coated Woven Glass Cloth  
Class H (180°C)

- Grade S281            0.13mm nominal thickness
- Grade S284            0.16mm nominal thickness
- Grade S282            0.18mm nominal thickness
- Grade S283            0.25mm nominal thickness

Silicone Elastomer products are manufactured by continuously coating woven "E" glass cloth with a specially formulated silicone elastomer.

Silicone Elastomer products exhibit high flexibility and dielectric strength and offer good resistance to moisture and corona discharge.

Under the action of fire the coating will decompose into a silica residue with no carbon deposit.

Silicone Elastomer can be offered at 1 metre width or in narrow tape widths, either bias or straight cut.

Silicone Elastomer will operate continuously at temperatures from -50°C to 180°C and resist short term exposure up to 300°C.

**Application:**

Silicone Elastomer products find wide use in heavy duty traction motors as stator coil end winding insulation and for winding connection insulation in both rotating machines and Class C rated dry type transformers.

A further principal application is as main insulation and as flame barriers in cables designed with fire survival characteristics.

Further uses are the manufacture of high temperature resistant flexible hoses, insulating washers for semi-conductor devices and as conveyor belting in ovens.



## Technical Data

Silicone Elastomer Grade	S 281	S 284	S 282	S 283
Dielectric strength @ 20°C (6.0 mm diameter electrodes rapid rise)	>20kV / mm	>25kV / mm	>27kV / mm	>27kV / mm
Tensile strength (Straight cut)	>10 N / mm	>16 N / mm	>16 N / mm	>16 N / mm
Thermal conductivity	0.25 W / mK	0.25 W / mK	0.25 W / mK	0.25 W / mK
Power factor @ 20°C - 1KHz	0.015	0.015	0.015	0.015
Permittivity @ 20°C - 1KHz	3.6	3.6	3.6	3.6
Surface resistivity @ 20°C	4 x 10 <sup>12</sup> ohms	4 x 10 <sup>12</sup> ohms	4 x 10 <sup>12</sup> ohms	4 x 10 <sup>12</sup> ohms
Thermal classification	Class H (180°C)	Class H (180°C)	Class H (180°C)	Class H (180°C)
Maximum short term temperature	300°C	300°C	300°C	300°C
Flammability SE - Self-extinguishing	SE	SE	SE	SE
<b>Availability</b>				
Maximum width	1000 mm			
Tolerance	± 10 mm			
Roll length	50, 100, 200 metres			
Weave direction	Straight cut Un-joined panel bias cut			
Tape widths	10, 12, 20, 25, 30, 38 mm			
Tolerance on width – straight cut	± 0.2 mm			
Length	Up to 400 metres			
Roll centres	76 mm			

