

## SS-PU20968 BLK Technical Data Sheet 10/01/2017

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## A two-Part, Polyurethane

### SS-PU20968 BLK Application

SS-PU20968 BLK is a two-part flexible polyurethane that offers excellent water resistance and electrical insulation characteristics.

- High frequency, high voltage applications

### SS-PU20968 BLK Introduction

#### Key Features

- Non-toxic
- Low viscosity
- Excellent resistance to seawater and aqueous based cleaning chemicals
- Excellent toughness and abrasion resistance

### SS-PU20968 BLK Physical Data (approx. – values)

Physical Data	Resin	Hardener	Mixed
Colour	Black	Brown	Black
Specific Gravity	0.92	1.24	0.97
Viscosity (mPas) @25°C	1000-4000	200-300	900

### SS-PU20968 BLK Cure Schedule (150ml sample)

Temperature	Room Temperature (20°C-25°C)	60°C	80°C
Working Life (minutes)	12	-	-
Gel Time (minutes)	20	-	-
Light Handling (Hours)	24	6	4
Full Cure (Hours)	168	4	24

### SS-PU20968 BLK Application

RoHS Compliant	Yes
UL94 V-0	No
REACH (SVHC concentration)	0%

### SS-PU20968 BLK Storage and shelf life

Material stored in the original unopened containers under cool dry condition between 15° and 25°C will have a shelf life of at least 12 months. Once used keep the containers sealed to prevent effects from water, air or contaminants.

### SS-PU20968 BLK Processing

Ratio by Weight	3.68:1
Ratio by Volume	4.99:1

Property	UNIT	Value
Hardness	Shore A	68
Operating Temp	°C	-75to +125
Thermal Conductivity	W/mK	<0.2
Tensile Strength	MPa	1.4
Elongation at Break	%	49
Compressive Yield Strength	MPa	<10
Peak Exotherm (50g mass)	°C	50
Coefficient of linear Expansion	µm/m/°C	100-150
Volume Resistivity	Ohm.cm	1.2 x 10 <sup>15</sup>
Surface Resistivity	Ohm	1.35 x 10 <sup>14</sup>
Electric Strength	kV/mm	20
Tg	°C	-82
Loss Tangent (20°C@)	50Hz	0.015
Permittivity (20°C@)	50Hz	3.3
Tg	°C	8

### SS-PU20968 BLK Packaging

SS-PU20968 BLK is available in bulk, twin packs and Kits.

### Health and Safety

Polyurethane resin systems may cause sensitisation by skin contact or inhalation may be corrosive, harmful or toxic, it is therefore strongly recommended that skin and eye contact is avoided by the using of appropriate personal protective equipment such as gloves, safety glasses or goggles and overalls. Wash any contamination from the skin immediately and thoroughly and do not eat, smoke or drink within the working vicinity.

Under normal working conditions a good source of ventilation is adequate however if the material is heated or where vapour levels are likely to exceed the occupational exposure limits appropriate respiratory protection must be worn. Local exhaust ventilation (LEV) may be required especially for curing ovens or where large volumes of material and curing. The above is given as a guide only; please refer to SS-PU20968 BLK Health and Safety data or our Technical Service Department for individual/specific advice.

### Limited Warranty

Silicone Solutions Ltd warrants that its product will conform to Silicone Solutions Ltd internal specifications at the time of application or use, provided that the product is stored in accordance with Silicone Solutions Ltd recommendations and used or applied before the earliest of (1) the "use before date" indicated on the product package, (2) six months from the date of shipment, or (3) expiration of such other period or recommended storage time stated in the Silicone Solutions Ltd literature for the product. If notified in writing of a claim within six months of the products use of application, Silicone Solutions Ltd will at its option replace or refund the purchase price of any Silicone Solutions product with does not satisfy the foregoing warranty.

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