

## **Pel-Urethane<sup>®</sup>**

<b>Product Name</b>	MU-209A/MU-209B
<b>Product Category</b>	Polyurethane Resin for Electronics
<b>Usage</b>	Substrates
<b>Function</b>	Flexible, Low Stress, Stress Release, Shock Absorption

### As supplied

(Typical Value)

Item	Condition	Unit	MU-209A	MU-209B
<b>Appearance</b>	visual	–	Black	Pale yellow
<b>Specific Gravity</b>	25°C	–	1.54	1.2
<b>Viscosity</b>	25°C	mPa·s	12000	110
<b>Mixing Ratio</b>	parts by weight		100/30	
<b>Mixed Viscosity</b>	25°C	mPa·s	2300	
<b>Mixed Specific Gravity</b>	25°C	–	1.45	
<b>Gel Time</b>	60°C	min	20	
<b>tuck free</b>	60°C	min	20	
	25°C	min	90	
<b>Pot Life</b>	25°C, time up to 10Pa.s	min	15	

### Standard Curing Condition

**60°C-2hour or 25°C-36hour**

### As cured

Item	Condition	Unit	Typical Value
<b>Hardness</b>	JIS K 7215 25°C	shore A	65
<b>Glass Transition Temp.</b>	TMA	°C	-25
<b>Coefficient of Thermal Expansion</b>	above Tg	/°C	$17 \times 10^{-5}$
<b>Tensile Strength</b>	JIS K 7312 25°C dumbbell No.2	MPa	3.2
<b>Young's Modulus</b>	JIS K 7312 25°C dumbbell No.2	MPa	2.1
<b>Elongation</b>	JIS K 7312 25°C dumbbell No.2	%	100
<b>Volume Resistivity</b>	JIS K 6911 25°C	$\Omega \cdot \text{cm}$	$3.3 \times 10^{13}$
<b>dielectric constant</b>	JIS K 6911 1kHz 100kHz 1MHz	–	6.4 4.1 3.8
<b>dielectric tangent</b>	JIS K 6911 1kHz 100kHz 1MHz	%	12.3 11.0 7.1
<b>Water Absorption</b>	JIS K 6911 25°C 24hrs	wt%	2.31
<b>Flame Resistance</b>	UL-94 1/4 inch	–	Equivalent V-0
<b>Thermal Conductivity</b>	300g	W/m·K	0.48

The above values are typical and not specification



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