

# NEONIT® SK80 L8G

(Preliminary data)<sup>1</sup>

<b>Description</b>	NEONIT® SK80 L8G is a long glass fiber reinforced epoxy molding compound with excellent long term property retention over a wide temperature range and climate conditions. It is particularly suited for over molding and manufacturing of large commutators.
<b>Generic identification</b>	
<b>Main filler</b>	Glass fiber
<b>Resin</b>	Epoxy
<b>Color</b>	Dark grey
<b>Molding method</b>	compression, transfer

NEONIT®

	Properties <sup>2</sup>	Typical Value <sup>3</sup>	Unit	Method	
<b>Physical</b>	Density	<b>1.79</b>	g/cm <sup>3</sup>	ISO 1183	
	Apparent density	<b>0.59</b>	g/cm <sup>3</sup>	ISO 60	
	Molding shrinkage	<b>0.11</b>	%	ISO 2577	
	Post shrinkage	<b>-0.02</b>	%	ISO 2577	
	Water absorption	<b>0.05</b>	%	ISO 62	
	Friction coefficient	Static	-	-	-
	Dynamic	-	-	-	
<b>Thermal</b>	Temperature of deflection under load		°C @ 1.8 MPa	ISO 75 Af	
			°C @ 8.0 MPa	ISO 75 C	
	Thermal conductivity	<b>0.49</b>	W/m K	ASTM E1461	
	Glass transition temperature (Tg)	<b>195</b>	°C	TMA	
	UL-flammability <sup>4</sup>	mm	-	UL 94	
		mm	-	UL 94	
<b>Mechanical</b>	Coefficient of linear thermal expansion	Parallel	<b>10</b>	10 <sup>-6</sup> /°C	TMA
		Perpendicular	<b>57</b>	10 <sup>-6</sup> /°C	TMA
	Flexural strength	<b>255</b>	MPa	ISO 178	
	Flexural modulus	<b>17</b>	GPa	ISO 178	
	Flexural strain at break		%	ISO 178	
	Tensile strength	<b>119</b>	MPa	ISO 527-1	
Tensile Young's modulus	<b>19</b>	GPa	ISO 527-1		
Tensile strain at break	<b>0.7</b>	%	ISO 527-1		
Charpy impact strength	notched	<b>54</b>	kJ/m <sup>2</sup>	ISO 179-1	
	unnotched		kJ/m <sup>2</sup>	ISO 179-1	
Compressive strength	<b>265</b>	MPa	ISO 604		
<b>Electrical</b>	Surface resistivity		Ohm	ASTM D257	
	Volume resistivity		Ohm cm	ASTM D527	
	Electric strength	<b>29</b>	kV/mm	IEC 60243-1	
	Comparative tracking index (CTI)	<b>225</b>	V	IEC 60112	
	Relative Permittivity (23°C)			IEC 60250	
	Dielectric dissipation factor (23°C)	<b>0.019 (@ 1MHz)</b>		IEC 60250	

**RoHS:** NEONIT® SK80 L8G is in compliance with RoHS2 (2011/65/EU, Restriction of Hazardous Substances).

**WEEE:** Parts produced from NEONIT® SK80 L8G are not subject to 'selective treatment' according to the Directive 2002/96/EC on Waste Electrical and Electronic Equipment.

**PFOS:** NEONIT® SK80 L8G does not contain perfluorooctansulfonate (PFOS) according to European Directive 2006/122/EC.

**REACH/SVHC:** NEONIT® SK80 L8G does not contain any Substances of Very High Concern (SVHC) as listed on the candidate list published by ECHA.

<sup>1</sup> Subject to change without notice.

<sup>2</sup> Properties measured on compression molded test specimens (MPTS - ISO 3167 - as molded).

<sup>3</sup> The reported values are averages, and are not intended for specification purposes. Contact your Neopreg representative.

<sup>4</sup> UL measurement based on internal measurements, not UL-listed.

# NEONIT® SK80 L5G

(Preliminary data)<sup>1</sup>

<b>Description</b>	NEONIT® SK80 L5G is a long glass fiber reinforced epoxy molding compound with excellent long term property retention over a wide temperature range and climate conditions. It is particularly suited for over molding and manufacturing of large commutators.
<b>Generic identification</b>	
<b>Main filler</b>	Glass fiber
<b>Resin</b>	Epoxy
<b>Color</b>	Dark grey
<b>Molding method</b>	compression, transfer

NEONIT®

	Properties <sup>2</sup>	Typical Value <sup>3</sup>	Unit	Method	
<b>Physical</b>	Density	<b>1.77</b>	g/cm <sup>3</sup>	ISO 1183	
	Apparent density	<b>0.65</b>	g/cm <sup>3</sup>	ISO 60	
	Molding shrinkage	<b>0.12</b>	%	ISO 2577	
	Post shrinkage	<b>-0.03</b>	%	ISO 2577	
	Water absorption	<b>0.05</b>	%	ISO 62	
	Friction coefficient	Static	-	-	-
	Dynamic	-	-	-	
<b>Thermal</b>	Temperature of deflection under load		°C @ 1.8 MPa	ISO 75 Af	
			°C @ 8.0 MPa	ISO 75 C	
	Thermal conductivity		W/m K	ASTM E1461	
	Glass transition temperature (Tg)	<b>195</b>	°C	TMA	
	UL-flammability <sup>4</sup>	mm	-	UL 94	
		mm	-	UL 94	
<b>Mechanical</b>	Coefficient of linear thermal expansion	Parallel	10 <sup>-6</sup> /°C	TMA	
		Perpendicular	<b>49</b>	10 <sup>-6</sup> /°C	TMA
	Flexural strength	<b>202</b>	MPa	ISO 178	
	Flexural modulus	<b>15</b>	GPa	ISO 178	
	Flexural strain at break		%	ISO 178	
	Tensile strength	<b>107</b>	MPa	ISO 527-1	
Tensile Young's modulus	<b>19</b>	GPa	ISO 527-1		
Tensile strain at break	<b>0.7</b>	%	ISO 527-1		
Charpy impact strength	notched	<b>43</b>	kJ/m <sup>2</sup>	ISO 179-1	
	unnotched		kJ/m <sup>2</sup>	ISO 179-1	
Compressive strength	<b>244</b>	MPa	ISO 604		
<b>Electrical</b>	Surface resistivity		Ohm	ASTM D257	
	Volume resistivity		Ohm cm	ASTM D527	
	Electric strength	<b>32</b>	kV/mm	IEC 60243-1	
	Comparative tracking index (CTI)	<b>200</b>	V	IEC 60112	
	Relative Permittivity (23°C)			IEC 60250	
	Dielectric dissipation factor (23°C)			IEC 60250	

**RoHS:** NEONIT® SK80 L5G is in compliance with RoHS2 (2011/65/EU, Restriction of Hazardous Substances).

**WEEE:** Parts produced from NEONIT® SK80 L5G are not subject to 'selective treatment' according to the Directive 2002/96/EC on Waste Electrical and Electronic Equipment.

**PFOS:** NEONIT® SK80 L5G does not contain perfluorooctansulfonate (PFOS) according to European Directive 2006/122/EC.

**REACH/SVHC:** NEONIT® SK80 L5G does not contain any Substances of Very High Concern (SVHC) as listed on the candidate list published by ECHA.

<sup>1</sup> Subject to change without notice.

<sup>2</sup> Properties measured on compression molded test specimens (MPTS - ISO 3167 - as molded).

<sup>3</sup> The reported values are averages, and are not intended for specification purposes. Contact your Neopreg representative.

<sup>4</sup> UL measurement based on internal measurements, not UL-listed.