

## Product Data Sheet

# Thioplast™ G1

Status:

July 2019

Liquid polysulfide polymer with thiol end groups

<b>Description</b>	Liquid Polysulfide Pre-polymer, end-capped by SH-functional end groups.																						
<b>Properties<sup>1)</sup></b> <small>1) Typical properties, not to be construed as product specifications</small>	<table> <tr> <td>Appearance</td> <td>brownish liquid polymer</td> </tr> <tr> <td>SH content</td> <td>1,8 – 2,0% (related to viscosity/Molecular weight)</td> </tr> <tr> <td>Viscosity (25 °C)</td> <td>38 – 50 Pas</td> </tr> <tr> <td>Av. Molecular weight</td> <td>3400 – 4600 g/mol (relative to SEC standard)</td> </tr> <tr> <td>Branching</td> <td>2,0 mol% (calculated on mol% TCP)</td> </tr> <tr> <td>Water content</td> <td>max. 0,35%</td> </tr> <tr> <td>Free sulfur</td> <td>0.01 – 0.1%</td> </tr> <tr> <td>Volatiles</td> <td>max. 0.5%</td> </tr> <tr> <td>Glass point</td> <td>approx. – 55 °C</td> </tr> <tr> <td>Flash point</td> <td>&gt; 230 °C</td> </tr> <tr> <td>CAS-No</td> <td>68611-50-7</td> </tr> </table>	Appearance	brownish liquid polymer	SH content	1,8 – 2,0% (related to viscosity/Molecular weight)	Viscosity (25 °C)	38 – 50 Pas	Av. Molecular weight	3400 – 4600 g/mol (relative to SEC standard)	Branching	2,0 mol% (calculated on mol% TCP)	Water content	max. 0,35%	Free sulfur	0.01 – 0.1%	Volatiles	max. 0.5%	Glass point	approx. – 55 °C	Flash point	> 230 °C	CAS-No	68611-50-7
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<b>Application</b>	<p>Thioplast G1 is used to formulate flexible, elastic sealants being used in Aerospace applications with best performance in tensile strength, high Nobel Gas retention and low moisture vapor permeability.</p> <p>Furthermore, Thioplast G1 is used in sealants with high tensile strength and good UV-resistance being used in construction applications.</p>																						
<b>Curing</b>	<p>Curing agent: Manganese(IV)-oxide (*): 5,7 – 6,3 g/100 g Thioplast G 1  (*) Pure curing agent: Manganese (IV)-oxide. The concentration of active/activated Manganese (IV)-oxide needs to be considered.</p> <table> <tr> <td><b>Curing paste</b></td> <td><b>pbw</b></td> </tr> <tr> <td>MnO<sub>2</sub>, Grade Honeywell FA</td> <td>100</td> </tr> <tr> <td>Santicizer 278</td> <td>100</td> </tr> <tr> <td>Perkacit DPG</td> <td>6</td> </tr> <tr> <td>Airex 900</td> <td>7.4</td> </tr> </table> <p>Properties of Thioplast G1 cured with 15 g curing paste/100 g Thioplast G1:</p> <table> <tr> <td>Shore A-hardness</td> <td>min 38</td> </tr> <tr> <td>Elongation @ break %</td> <td>min 75</td> </tr> </table>	<b>Curing paste</b>	<b>pbw</b>	MnO <sub>2</sub> , Grade Honeywell FA	100	Santicizer 278	100	Perkacit DPG	6	Airex 900	7.4	Shore A-hardness	min 38	Elongation @ break %	min 75								
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<b>Packaging</b>	Thioplast G1 is available in 200 Liter drums, 1000 Liter IBC and 20m <sup>3</sup> ISO Bulk.																						
<b>Storage</b>	Store the container in cool and dry area, keep it closed when not in use. Shelf life under appropriate storage conditions min 3 years.																						
<b>Handling</b>	Full information on the safe handling is available in the Material Safety Data Sheet (MSDS). Further details are available upon request.																						

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