

Product Data Sheet

Thioplast™ G12

Status:

July 2019

Liquid polysulfide polymer with thiol end groups

Description	Liquid Polysulfide Pre-polymer, end-capped by SH-functional end groups.																						
Properties¹⁾ <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>1,5 – 1,7% (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>4100 – 4600 g/mol (relative to SEC standard)</td> </tr> <tr> <td>Branching</td> <td>0,2 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>> 230 °C</td> </tr> <tr> <td>CAS-No</td> <td>68611-50-7</td> </tr> </table>	Appearance	brownish liquid polymer	SH content	1,5 – 1,7% (related to viscosity/Molecular weight)	Viscosity (25 °C)	38 – 50 Pas	Av. Molecular weight	4100 – 4600 g/mol (relative to SEC standard)	Branching	0,2 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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Application	<p>Thioplast G12 is used to formulate highly flexible and elastic sealants being used in aerospace applications with best performance in Jet Fuel resistance, high Nobel Gas retention and low moisture vapor permeability.</p> <p>Furthermore, Thioplast G12 is used in sealants with high elasticity and good UV-resistance being used in construction applications.</p>																						
Curing	<p>Curing agent: Manganese(IV)-oxide (*): 5,7 – 6,3 g/100 g Thioplast G 12 (*) Pure curing agent: Manganese (IV)-oxide. The concentration of active/activated Manganese (IV)-oxide needs to be considered.</p> <table> <thead> <tr> <th>Curing paste</th> <th>pbw</th> </tr> </thead> <tbody> <tr> <td>MnO₂, 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> </tbody> </table> <p>Properties of Thioplast G12 cured with 15 g curing paste/100 g Thioplast G12:</p> <table> <tr> <td>Shore A-hardness</td> <td>min</td> <td>30</td> </tr> <tr> <td>Elongation @ break %</td> <td>min</td> <td>200</td> </tr> </table>	Curing paste	pbw	MnO ₂ , Grade Honeywell FA	100	Santicizer 278	100	Perkacit DPG	6	Airex 900	7.4	Shore A-hardness	min	30	Elongation @ break %	min	200						
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Packaging	Thioplast G12 is available in 200 Liter drums, 1000 Liter IBC and 20m ³ ISO Bulk.																						
Storage	Store the container in cool and dry area, keep it closed when not in use. Shelf life under appropriate storage conditions min 3 years.																						
Handling	Full information on the safe handling is available in the Material Safety Data Sheet (MSDS). Further details are available upon request.																						

Legal Disclaimer: All information is based upon tests and data believed to be reliable, however, it is the user's responsibility to determine the suitability for his own use of the products described here. Nothing herein contained is to be construed as permission or as a recommendation to infringe any patent. All orders accepted shall be subjected to the standard conditions of sales of the manufacturing company, Nouryon Functional Chemicals GmbH, Greiz, Germany.

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