

Product Data Sheet

Thioplast™ G21F

Status:
 December 2018

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>2,6 – 3,0% (related to viscosity/Molecular weight)</td> </tr> <tr> <td>Viscosity (25 °C)</td> <td>10 – 15 Pas</td> </tr> <tr> <td>Av. Molecular weight</td> <td>2100 – 2500 g/mol (relative to SEC standard)</td> </tr> <tr> <td>Branching</td> <td>1,45 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	2,6 – 3,0% (related to viscosity/Molecular weight)	Viscosity (25 °C)	10 – 15 Pas	Av. Molecular weight	2100 – 2500 g/mol (relative to SEC standard)	Branching	1,45 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 G21F is used to formulate flexible, highly elastic sealants being used in Insulating Glass applications with best performance in high Nobel Gas retention and low moisture vapor permeability.</p> <p>Furthermore, Thioplast G21F is used in low viscos sealants with good UV-resistance being used in construction applications.</p>																						
Curing	<p>Curing agent: Manganese(IV)-oxide (*): 7,5 – 9,4 g/100 g Thioplast G 21 (*) 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 G21F cured with 21 g curing paste/100 g Thioplast G21F:</p> <table> <tr> <td>Shore A-hardness</td> <td>min 36</td> </tr> <tr> <td>Elongation @ break %</td> <td>min 100</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 36	Elongation @ break %	min 100								
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Packaging	Thioplast G21F 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.																						

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