

Product Data Sheet

Thioplast™ G21F

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>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
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																						
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</td> <td>36</td> </tr> <tr> <td>Elongation @ break %</td> <td>min</td> <td>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						
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																					
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.																						

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.

Nouryon Functional Chemicals GmbH
Liebigstr.7, D-07973 Greiz, Germany
Tel. +49-3661-78-0

thioplast@nouryon.com
<https://sulfurderivatives.nouryon.com/thioplast/>