

High flow Compounds that Combine the Advantages of Thermoplastic Processing and Elastomeric Performance

Sarlink® 4700 series grades exemplify our curiosity and discipline in research, and our care and dedication in production. Our engineers have succeeded in creating a product range that feels like rubber yet processes easily like plastic. Sarlink® 4700 is based on carefully selected raw materials in combination with a proprietary process technology, which combines superb elastic properties with the processing ease of thermoplastics.

High Raw-Material Efficiency

Sarlink® is an environmentally friendly equivalent to general purpose thermoset rubber compounds, with high chemical resistance comparable to general purpose polychloroprene rubber. This unique combination enables a broad range of applications. Compared to thermoset rubber, using Sarlink® will reduce production costs due to its shorter cycle times, reduced energy needs, and a very high raw-material efficiency as a result of its recyclability.

Main Characteristics

Sarlink® 4700 series compounds are characterized by high or super high flow properties coupled with excellent elastic behavior and UV resistance. These grades are specifically designed for use in injection molded parts requiring outstanding surface

appearance, especially for use in hard-to-fill parts. Products using these grades can be manufactured with fast cycle time and easy mold release. The Sarlink® 4700 series is available in hardnesses from 50 Shore A up to 85 Shore A, in black color.

Safety

Sarlink® does not present a toxic hazard through skin contact or inhalation when handled under normal conditions. Contact with molten polymers or inhalation of fumes should be avoided during processing. More and detailed information can be downloaded from www.teknorapex.com/sarlink.

Other Teknor Apex TPE products

Sarlink® is one of six product families within the Teknor Apex TPE portfolio. The Sarlink® range itself contains multiple grade series, each with a specialty set of properties designed to fit a variety of application requirements. In addition to standard Sarlink® series, special Sarlink® grades exist or can be developed to meet unique customer requirements, such as specific OEM or regulatory approval requirements, UV resistance, or potable water contact. Information regarding these specialty grades and other Sarlink® series are available via your representative or at www.teknorapex.com/sarlink.

Data Sarlink® 4700 high flow injection molding grades (ISO standards - typical properties)

Typical properties	Test standard	Units S.I.	4750B42	4755B42	4765B40	4765B42	4775B40	4775B42	4785B40
Density	ISO 1183	kg/m ³	910	910	910	910	910	910	910
Hardness (5 sec delay)	ISO 868	Shore A or D							
Extruded sample			50A	54A	62A	62A	74A	74A	84D
Injection molded sample			53A	56A	65A	65A	76A	76A	86D
Tensile properties	ISO 37								
<i>Flow direction</i>									
Tensile strength at break		MPa	3,9	4,3	5,0	4,9	6,0	5,8	8,9
Modulus at 100% elongation		MPa	2,2	2,7	3,0	2,9	3,5	3,4	5,5
Elongation at break		%	320	390	360	340	410	410	450
<i>Cross flow direction</i>									
Tensile strength at break		MPa	4,2	5,0	5,6	5,1	6,6	6,3	9,5
Modulus at 100% elongation		MPa	1,5	1,8	2,4	2,3	3,1	3,2	4,8
Elongation at break		%	440	500	490	400	490	470	540
Tear strength (cross flow)	ISO 34B								
Unnicked angle		kN/m	16	19	26	25	33	31	40
Compression set	ISO 815								
22 hrs@23°C		%	15	19	20	23	24	24	32
22 hrs@70°C		%	26	28	26	32	36	39	44
70 hrs@125°C		%	40	43	45	48	52	56	72
Hot air aging (cross flow direction)	ISO 188								
<i>168 hrs@150°C</i>									
Change in hardness		pts	-1	-2	0	1	1	1	3
Retention tensile strength at break		%	80	94	82	80	78	81	90
Retention modulus at 100% elongation		%	93	99	98	100	102	102	107
Retention elongation at break		%	87	98	83	76	71	76	82
<i>1000 hrs@135°C</i>									
Change in hardness		pts	2	2	2	1	3	-2	1
Retention tensile strength at break		%	89	98	88	82	88	82	96
Retention modulus at 100% elongation		%	99	107	102	101	105	103	109
Retention elongation at break		%	99	96	87	78	84	72	86
Volume swell	ISO 1817								
70 hrs@125°C in IRM 903 oil		%	85	90	84	84	74	73	65
Apparent shear viscosity	ISO 11443								
@206 1/s, 200°C	Capillary	Pa.s	220	220	230	210	220	200	190

Some grades may not be available locally

Revised: August 1, 2008

sarlink®

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About Teknor Apex TPE

The Thermoplastic Elastomer Division of Teknor Apex Company (TA TPE) is the most diversified manufacturer of TPEs, offering seven broad product families based on generically distinct chemistries and operating plants in the US, Europe, and Asia.

The processes used by TA TPE produce compounds that exhibit outstanding rubber-like properties with particular characteristics while being processable at high rates like any other thermoplastic, as well as being recyclable. Visit www.teknorapex.com/tpe to see the TPE product families.

Headquartered in Pawtucket, Rhode Island, US, the Division is an international supplier to the appliance, automotive, construction, medical-device, wire and cable, and other consumer and industrial product industries. Other plastics businesses of Teknor Apex include the Bioplastics, Nylon, Specialty Compounding, and Vinyl Divisions and Teknor Color Company. Visit www.teknorapex.com.

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