

## Combining Outstanding UV Resistance and Sealing Performance

Sarlink<sup>®</sup> 5700 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<sup>®</sup> 5700 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 5700 series compounds are characterized by their fully optimized, superb UV resistance and improved fogging properties, combined with excellent elastic and sealing performance. Their well balanced rheological properties allow for a broad operating window and their controlled morphology reduces surface imperfections

and defects. The lot-to-lot and intra-lot variations are well controlled to very low levels. These qualities make Sarlink<sup>®</sup> 5700 series materials extremely suitable for extruded automotive sealing systems. The Sarlink<sup>®</sup> 5700 series is available in hardnesses from 25 Shore A up to 50 Shore D, in black color.

### Safety

Sarlink<sup>®</sup> 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](http://www.teknorapex.com/sarlink).

### Other Teknor Apex TPE products

Sarlink<sup>®</sup> is one of six product families within the Teknor Apex TPE portfolio. The Sarlink<sup>®</sup> 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<sup>®</sup> series, special Sarlink<sup>®</sup> 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<sup>®</sup> series are available via your representative or at [www.teknorapex.com/sarlink](http://www.teknorapex.com/sarlink).

## Data Sarlink® 5700 extrusion grades (ISO standards - typical properties)

Typical properties	Test standard	Units S.I.	5725B4	5735B4	5745B4	5755B4	5765B4	5775B4	5780B4	5790B4	5740DB4	5750DB4
<b>Density</b>	ISO 1183	kg/m <sup>3</sup>	930	930	950	970	970	970	970	970	960	960
<b>Hardness (5 sec delay)</b>	ISO 868	Shore A or D										
Extruded sample			23A	34A	44A	55A	65A	72A	80D	87A	38A	49D
Injection molded sample			26A	36A	46A	58A	68A	75A	82D	89A	40A	52D
<b>Tensile properties</b>	ISO 37											
<i>Flow direction</i>												
Tensile strength at break		MPa	1,5	2,6	3,0	4,6	6,3	7,3	9,0	13,4	18,0	21,5
Modulus at 100% elongation		MPa	1,1	1,7	2,1	3,1	4,2	4,9	6,8	9,8	13,3	18,0
Elongation at break		%	200	210	230	280	320	340	360	370	490	490
<i>Cross flow direction</i>												
Tensile strength at break		MPa	2,5	3,3	4,3	5,2	7,1	8,5	10,0	14,1	19,0	23,0
Modulus at 100% elongation		MPa	0,5	0,8	1,2	1,9	2,7	3,2	4,5	6,5	9,0	13,1
Elongation at break		%	510	530	540	550	570	590	590	600	640	640
<b>Tear strength (cross flow)</b>	ISO 34B											
Unnicked angle		kN/m	9	10	17	21	29	35	47	70	88	141
<b>Compression set</b>	ISO 815											
22 hrs@23°C		%	10	12	13	17	21	23	28	36	46	55
22 hrs@70°C		%	20	23	26	27	30	32	41	49	58	67
70 hrs@125°C		%	51	42	42	42	44	47	60	72	80	85
<b>Hot air aging (cross flow direction)</b>	ISO 188											
<i>168 hrs@150°C</i>												
Change in hardness		pts	-3	1	-2	-2	1	2	-1	1	3	3
Retention tensile strength at break		%	96	102	102	88	87	90	88	87	78	84
Retention modulus at 100% elongation		%	93	108	101	98	96	102	107	110	105	115
Retention elongation at break		%	82	112	112	98	95	89	80	80	75	75
<i>1000 hrs@135°C</i>												
Change in hardness		pts	-1	0	-2	1	2	3	1	1	3	4
Retention tensile strength at break		%	96	95	93	94	93	92	90	93	80	80
Retention modulus at 100% elongation		%	93	104	100	103	105	104	110	114	109	124
Retention elongation at break		%	76	115	114	110	98	93	81	80	75	70
<b>Volume swell</b>	ISO 1817											
70 hrs@125°C in IRM 903 oil		%	71	110	120	99	91	88	73	60	47	38
<b>Apparent shear viscosity</b>	ISO 11443											
@2061/s, 200°C	Capillary	Pa.s	140	210	280	315	340	330	330	350	400	430

Some grades may not be available locally  
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**sarlink®**

**TEKNOR APEX**

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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](http://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](http://www.teknorapex.com).

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