

Combining the Advantages of Thermoplastic Processing and Elastomeric Performance

Sarlink 3100 series grades exemplify both our curiosity and discipline in research, and care and dedication in production. Our engineers have succeeded in creating a product range that feels like rubber yet processes easily like plastic. Sarlink 3100 is based on dynamically vulcanized rubber in a polypropylene matrix, which combines superb elastic properties with the processing ease of thermoplastics.

High Material Efficiency

Sarlink is the environmentally friendly equivalent to general purpose thermoset rubber compounds, with high chemical resistance comparable to general purpose polychloroprene rubber compounds. 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 material efficiency as a result of its recyclability.

Main Characteristics

The Sarlink 3100 series can be processed by standard thermoplastic processing techniques such as injection molding, extrusion and

blow molding. The well balanced flow characteristics of this range help to create superior aesthetic surface appearance. The Sarlink 3100 series contains a wide variety of grades with hardnesses from 35 Shore A up to 45 Shore D, in black and natural colors.

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.sarlink.com.

Other Sarlink Products

Other Sarlink grade series exist, 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 Sarlink representative or on www.sarlink.com.



Data Sarlink 3100 general purpose grades (ISO standards - typical properties)

Date of last modification: 1-Aug-08

Typical properties	Test standard	Units S.I.	3135	3140	3150	3160	3170	3180	3190	3139D	3145D
Density	ISO 1183	kg/m ³	930	930	950	950	950	950	940	940	940
Hardness (5 sec delay)	ISO 868	Shore A or D									
Extruded sample			38A	41A	54A	62A	71A	80A	89A	38D	47D
Injection molded sample			43A	46A	56A	65A	75A	84A	92A	41D	50D
Tensile properties	ISO 37										
<i>Flow direction</i>											
Tensile strength at break		MPa	2,2	2,5	4,1	5,4	6,7	8,5	12,1	17,4	19,4
Modulus at 100% elongation		MPa	2,1	2,5	3,0	3,8	5,1	6,7	10,0	13,3	15,5
Elongation at break		%	200	210	240	270	300	330	380	400	400
<i>Cross flow direction</i>											
Tensile strength at break		MPa	4,0	4,4	5,1	6,3	7,7	9,4	13,5	18,5	22,5
Modulus at 100% elongation		MPa	1,1	1,2	1,9	2,5	3,3	4,5	6,6	8,9	12,8
Elongation at break		%	600	600	600	640	670	690	700	700	700
Tear strength (cross flow)	ISO 34B										
Unnicked angle		kN/m	15	16	24	32	42	51	81	101	131
Compression set	ISO 815										
22 hrs@23°C		%	15	18	20	23	25	32	48	53	57
22 hrs@70°C		%	30	31	32	34	43	50	61	67	70
70 hrs@125°C		%	52	52	52	55	63	65	75	85	90
Hot air aging (cross flow direction)	ISO 188										
<i>168 hrs@150°C</i>											
Change in hardness		pts	1	1	2	3	3	2	2	1	2
Retention tensile strength at break		%	104	111	107	99	96	92	95	93	95
Retention modulus at 100% elongation		%	111	106	105	107	105	109	111	111	108
Retention elongation at break		%	101	107	108	89	86	84	88	89	89
<i>1000 hrs@135°C</i>											
Change in hardness		pts	-1	-1	1	2	-1	0	-1	0	1
Retention tensile strength at break		%	100	112	94	96	92	91	90	95	102
Retention modulus at 100% elongation		%	104	105	107	103	110	117	109	109	116
Retention elongation at break		%	98	112	93	95	87	85	85	90	89
Volume swell	ISO 1817										
70 hrs@125°C in IRM 903 oil		%	150	135	130	120	115	95	73	55	52
Apparent shear viscosity	ISO 11443										
@206 1/s, 200°C	Capillary	Pa.s	270	270	270	310	290	290	310	310	310

Some grades may not be available locally


Stretching innovations
Americas (all enquiries)

Telephone: +1.978.534.1010
 Toll Free (USA only): 800.524.0120
 Fax: +1.978.534.1005

Europe (all enquiries)

Telephone: +31.46.477.3362
 Fax: +31.46.476.1050

Singapore

Commercial Enquiry : + 65-63936120
 Fax: + 65-62995848

China

Commercial Enquiry: + 86-13601793834
 Technical Enquiry: + 86-15921993719

Japan

Commercial Enquiry: +81-352095151

About Sarlink

Sarlink is a global brand of premium quality pelletized thermoplastic vulcanizates (TPVs). A specialist in developing and manufacturing high quality TPVs to offer customers the material properties they need, such as flexibility, durability and low compression set. The products are produced under the highest production standards. Sold and distributed by a dedicated and service-driven sales force. And supported by an expert application development. Sarlink adds value by being a specialist in high quality TPV solutions and offering a support structure based on close partnership. Sarlink is a truly global company with production operations and laboratories in Leominster MA (USA) and Genk (Belgium), and sales/marketing and technical support

offices in Southfield MI (USA), Leominster MA (USA), Sittard (The Netherlands), Shanghai (China) and Singapore.

All information supplied by or on behalf of DSM in relation to its products whether in the nature of data, recommendations or otherwise, is supported by research and believed reliable, but DSM assumes no liability whatsoever in respect of application, processing or use made of the aforementioned information of products, or any consequence thereof. The buyer undertakes aforementioned information or product, whose quality and other properties he shall verify, or any consequences thereof. No liability whatsoever shall attach to DSM for any infringement of the rights owned or controlled by a third party in intellectual, industrial or other property by reason of the application, processing or use of the aforementioned information or products by the buyer. © Sarlink is a registered trademark of DSM. Names and trademarks used in recipes or information refer to the owner of the respective trademarks and/or names of their products. DSM disclaims any rights regarding these trademarks and/or names.

info@sarlink.com
www.sarlink.com