Sarlink 4100 Series

Combining the Advantages of Thermoplastic Processing and Elastomeric Performance

Sarlink 4100 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 4100 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 is 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 compounds of the Sarlink 4100 series combine chemical and abrasion resistance with high tensile properties and excellent elastic properties such as low tension and compression sets.

Our compounds can be processed using standard thermoplastic processing techniques such as injection molding, extrusion and blow molding. The Sarlink 4100 series contains a wide variety of grades with hardnesses from 45 Shore A up to 50 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

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

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Data Sarlink 4100 general purpose grades (ISO standards - typical properties)										Date of last modification: 1-Aug-08
Typical properties	**Test standard**	**Units S.I.**	**4145**	**4155**	**4165**	**4175**	**4180**	**4190**	**4139D**	**4149D**
Density	ISO 1183	kg/m3	960	960	960	960	960	950	950	940
Hardness (5 sec delay)	ISO 868	Shore A or D								
Extruded sample			45A	53A	63A	72A	79A	86A	39D	47D
Injection molded sample			48A	56A	65A	75A	83A	90A	40D	51D
Tensile properties	ISO 37									
Flow direction										
Tensile strength at break		MPa	3,1	4,3	5,8	7,2	9,0	13,6	18,0	21,6
Modulus at 100% elongation		MPa	2,6	3,1	4,2	5,3	6,8	10,2	13,3	18,0
Elongation at break		%	180	240	280	300	330	380	420	420
Cross flow direction										
Tensile strength at break		MPa	4,3	5,2	6,8	8,5	10,2	14,5	19,0	23,1
Modulus at 100% elongation		MPa	1,3	2,0	2,5	3,3	4,5	6,7	8,9	13,0
Elongation at break		%	550	550	570	590	620	650	700	740
Tear strength (cross flow)	ISO 34B									
Unnicked angle		kN/m	20	22	29	39	48	71	97	141
Compression set	ISO 815									
22 hrs@23°C		%	11	14	17	22	26	36	46	55
22 hrs@70°C		%	26	26	27	31	40	48	56	64
70 hrs@125°C		%	35	37	40	45	58	72	80	85
Hot air aging (cross flow direction)	ISO 188									
168 hrs@150°C										
Change in hardness		pts	0	2	2	3	2	3	2	2
Retention tensile strength at break		%	95	91	89	91	90	92	85	85
Retention modulus at 100% elongation		%	97	98	100	103	105	110	115	115
Retention elongation at break		%	106	94	89	84	85	83	80	80
1000 hrs@135°C										
Change in hardness		pts	2	2	2	2	3	3	2	2
Retention tensile strength at break		%	98	95	91	98	91	89	85	92
Retention modulus at 100% elongation		%	100	102	104	105	110	115	120	125
Retention elongation at break		%	113	101	92	95	85	84	80	80
Volume swell	ISO 1817									
70 hrs@125°C in IRM 903 oil		%	112	85	83	78	64	54	47	38
Apparent shear viscosity	ISO 11443									
@206 1/s, 200°C	Capillary	Pa.s	320	320	340	340	340	340	370	440

Some grades may not be available locally

sarlink

Stretching innovations

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