

BASF Wire & Cable Solutions

Product Range:

Cold Temperature Flexibility



Elastollan® 11 Series

Thermoplastic polyether polyurethane elastomer

Property	Unit of Measurement	Test Procedure
Hardness	Shore A	DIN ISO 7619-1 (3s)
Hardness	Shore D	DIN ISO 7619-1 (3s)
Density	g/cm ³	DIN EN ISO 1183-1-A
Tensile strength	MPa	DIN 53504-S2
Elongation at break	%	DIN 53504-S2
Stress at 20 % elongation	MPa	DIN 53504-S2
Stress at 100 % elongation	MPa	DIN 53504-S2
Stress at 300 % elongation	MPa	DIN 53504-S2
E-modulus from tensile test	MPa	DIN EN ISO 527
Tear strength	kN/m	DIN ISO 34-1.B(b)
Abrasion	mm ³	DIN ISO 4649-A
Compression set 23 °C / 72 hours	%	DIN ISO 815
Compression set 70 °C / 24 hours	%	DIN ISO 815
Tensile strength after storage in water at 80 °C for 42 days	MPa	DIN 53504-S2
Elongation at break after storage in water at 80 °C for 42 days	%	DIN 53504-S2
Notched impact resistance (Charpy) +23 °C	kJ/m ²	DIN EN ISO 179-1
Notched impact resistance (Charpy) -30 °C		
Burning behavior (depending on wall thickness)		UL 94

Property	Unit of Measurement	Test Procedure
Hardness	Shore A	DIN ISO 7619-1 (3s)
Hardness	Shore D	DIN ISO 7619-1 (3s)
Density	g/cm ³	DIN EN ISO 1183-1-A
Tensile strength	MPa	DIN 53504-S2
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Stress at 100 % elongation	MPa	DIN 53504-S2
Stress at 300 % elongation	MPa	DIN 53504-S2
E-modulus from tensile test	MPa	DIN EN ISO 527
Tear strength	kN/m	DIN ISO 34-1.B(b)
Abrasion	mm ³	DIN ISO 4649-A
Compression set 23 °C / 72 hours	%	DIN ISO 815
Compression set 70 °C / 24 hours	%	DIN ISO 815
Tensile strength after storage in water at 80 °C for 42 days	MPa	DIN 53504-S2
Elongation at break after storage in water at 80 °C for 42 days	%	DIN 53504-S2
Notched impact resistance (Charpy) +23 °C	kJ/m ²	DIN EN ISO 179-1
Notched impact resistance (Charpy) -30 °C		
Burning behavior (depending on wall thickness)		UL 94

For more detailed information, please refer to the product information and processing guidance.

- Excellent hydrolysis resistance
- Cold flexibility
- Resistance to microorganisms

1170 A 10	1175 A 10 W	1180 A 10	1185 A 10 W	1185 A 10	1185 A 59 U	1185 A 10 M	1185 A 12 WM
71	75	80	73	87	86	88	87
				36		39	39
1.08	1.14	1.11	1.16	1.12	1.12	1.11	1.13
30	40	45	40	45	50	45	30
850	700	650	700	600	480	600	650
1.5	2	2	2.5	2.5		3.5	4
3.5	4	4.5	6	6		7	7
6.3	8	8	8	10		12	13
45	40	55	50	70	65	60	55
45	45	30	45	25	35	60	65
20	20	25	20	25		35	25
39	40	45	35	45		45	43
20	28	30	30	32		30	30
900	750	700	700	600		650	600
nb	nb	nb	nb	nb		nb	nb
nb	nb	nb	nb	nb		nb	nb
	V0 / V2	HB	V2	HB			V2

1190 A 10	1195 A 10	1195 A 55 U	1198 A 10	1154 D 10	1160 D 50	1164 D 11	1174 D 11
92	96						
42	48	43	52	53	60	69	75
1.13	1.15	1.15	1.17	1.17	1.18	1.18	1.2
50	55	50	50	50	50	50	65
550	500	500	420	450	400	350	380
5	6	6	9	11	13	16	25
9	10	10	15	17	19	25	30
16	18	100	28	38	41	45	450
				150	200	250	560
85	100	100	130	150	170	190	2220
25	25	25	25	30	30	30	22
25	30	30	35	40	40	40	50
45	45	45	50	50	50	50	55
35	37	37	35	35	35	35	35
600	500	500	450	450	450	400	400
nb	nb	nb	nb	nb	nb	nb	nb
nb	nb	nb	190	18	16	12	5
	HB						

Elastollan® 12 Series

Thermoplastic polyether polyurethane elastomer

Property	Unit of Measurement	Test Procedure
Hardness	Shore A	DIN ISO 7619-1 (3s)
Hardness	Shore D	DIN ISO 7619-1 (3s)
Density	g/cm ³	DIN EN ISO 1183-1-A
Tensile strength	MPa	DIN 53504-S2
Elongation at break	%	DIN 53504-S2
Stress at 20 % elongation	MPa	DIN 53504-S2
Stress at 100 % elongation	MPa	DIN 53504-S2
Stress at 300 % elongation	MPa	DIN 53504-S2
E-modulus from tensile test	MPa	DIN EN ISO 527
Tear strength	kN/m	DIN ISO 34-1.B(b)
Abrasion	mm ³	DIN ISO 4649-A
Compression set at 23 °C / 72 hours	%	DIN ISO 815
Compression set at 70 °C / 24 hours	%	DIN ISO 815
Tensile strength after storage in water at 80 °C for 42 days	MPa	DIN 53504-S2
Elongation at break after storage in water at 80 °C for 42 days	%	DIN 53504-S2
Notched impact strength (Charpy) +23 °C	kJ/m ²	DIN EN ISO 179-1
Notched impact strength (Charpy) -30 °C	kJ/m ²	

For more detailed information, please refer to the product information and processing guidance.

- Highly transparent
- Excellent hydrolysis resistance
- Cold flexibility
- Resistance to microorganisms

1285 A 10 U	1290 A 10 U	1295 A 13 U	1298 A 13 U	1254 D 13 U	1260 D 13 U	1264 D 13 U	1278 D 11 U	1283 D 11 U
86	89	95						
		45	50	57	61	64	77	83
1.13	1.13	1.15	1.16	1.17	1.18	1.18	1.2	1.22
36	50	59	60	60	45	50	50	67
710	500	560	460	470	350	350	350	170
2.5	4	6	9	17	14	17	29	56
6	8	11	16	23	23	25	33	47
9	11	18	28	35	37	35	43	0
	30	50	90	160	225	310	808	2000
60	80	116	130	165	165	170	220	310
45	25	35	23	30	40	40	40	80
25	23	25	28	42	45	48	72	10
40	35	45	45	65	52	48	60	96
			50	53	51	46		
			550	520	500	450		
	nb 110	nb 160	nb 171	nb 14	nb 13	nb 12	nb 10	

Elastollan® B Series

Thermoplastic polyester polyurethane elastomer

Property	Unit of Measurement	Test Procedure
Hardness	Shore A	DIN ISO 7619-1 (3s)
Hardness	Shore D	DIN ISO 7619-1 (3s)
Density	g/cm ³	DIN EN ISO 1183-1-A
Tensile strength	MPa	DIN 53504-S2
Elongation at break	%	DIN 53504-S2
Stress at 20 % elongation	MPa	DIN 53504-S2
Stress at 100 % elongation	MPa	DIN 53504-S2
Stress at 300 % elongation	MPa	DIN 53504-S2
E-modulus from tensile test	MPa	DIN EN ISO 527
Tear strength	kN/m	DIN ISO 34-1.B(b)
Abrasion	mm ³	DIN ISO 4649-A
Compression set at 23 °C / 72 hours	%	DIN ISO 815
Compression set at 70 °C / 24 hours	%	DIN ISO 815
Tensile strength after storage in water at 80 °C for 21 days	MPa	DIN 53504-S2
Elongation at break after storage in water at 80 °C for 21 days	%	DIN 53504-S2
Notched impact strength (Charpy) +23 °C	kJ/m ²	DIN EN ISO 179-1
Notched impact strength (Charpy) -30 °C		

For more detailed information, please refer to the product information and processing guidance.

- Very good mechanical properties
- Good cold flexibility
- Good wear resistance

B 80 A 11	B 85 A 11	B 90 A 15	B 95 A 15	B 98 A 15	B 60 D 15	B 64 D 11
82	83	91	96			
		42	48	50	60	64
1.19	1.2	1.21	1.22	1.22	1.23	1.24
50	55	55	55	55	55	55
600	600	550	550	500	500	450
2	2	4	7	8	13	17
5	4	7	10	12	16	19
15	15	20	22	30	30	35
				140	240	320
85	75	90	100	130	150	180
35	35	30	30	25	25	25
20	25	25	30	35	35	35
30	35	40	40	45	45	50
40	40	40	40	40	40	40
600	600	550	500	500	450	400
nb	nb	nb	nb	nb	nb	nb
nb	nb	nb	200	18	10	8