

BASF Wire & Cable Solutions

Product Range:

**Halogen Free
and Low Smoke
Flame Retardant**



Elastollan® FHF / HFFR Series

Thermoplastic polyether polyurethane elastomer

Property	Unit of Measurement	Test Procedure	1185 A 10 FHF	1190 A 10 FHF	1191 A 10 FHF
Hardness	Shore A	DIN ISO 7619-1 (3s)	89	90	91
Hardness	Shore D	DIN ISO 7619-1 (3s)	37		
Density	g/cm ³	DIN EN ISO 1183-1-A	1.23	1.25	1.27
Tensile strength	MPa	DIN 53504-S2	35	25	25
Elongation at break	%	DIN 53504-S2	600	550	600
Stress at 20 % elongation	MPa	DIN 53504-S2	3.5	5	5
Stress at 100 % elongation	MPa	DIN 53504-S2	8	8	10
Stress at 300 % elongation	MPa	DIN 53504-S2	13	11	12
E-modulus from tensile test	MPa	DIN EN ISO 527			
Tear strength	kN/m	DIN ISO 34-1.B(b)	60	60	65
Abrasion	mm ³	DIN ISO 4649-A	35	30	40
Compression set at 23 °C / 72 hours	%	DIN ISO 815	25	26	
Compression set at 70 °C / 24 hours	%	DIN ISO 815	45	43	
Tensile strength after storage in water at 80 °C for 42 days	MPa	DIN 53504-S2	20	15	
Elongation at break after storage in water at 80 °C for 42 days	%	DIN 53504-S2	60	640	
Notched impact strength (Charpy) +23 °C	kJ/m ²	DIN EN ISO 179-1	nb	nb	
Notched impact strength (Charpy) -30 °C			120	46	
Burning behavior (depending on wall thickness)		UL 94	V0	V0	

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

- Non-halogen-based flame retardant
- Outstanding mechanical properties
- Excellent hydrolysis resistance
- Resistance to microorganisms

1192 A 10 FHF	1147 D 10 FHF	1154 D 10 FHF	1185 A 10 HFFR	SP 3092 A 10 HFFR	1270 D 10 FHF	1280 D 10 FHF
91	94		86	95		
	48	58		52	69	80
1.25	1.29	1.27	1.42	1.62	1.29	1.32
17	13	30	23	15	27	49
550	400	400	580	400	300	10
	7	13	4	8	18	
	9	19	6	7	20	
	10	33	8	7	22	
		160			700	2300
35	60	110	55	42	156	96
80	55	30			85	220
	30	30				
	50	45				
	7	20	12			
	270	400	750			
	nb	50				
	21	3				
		V0 / V2			V0 (0.43-0.47 mm ALL)	V2 (0.4 mm) V2 (3.0 mm)