

Elastollan® 1192 A11 FHF

Marketing Card



Target Application – Jacketing for wire and cables

Key Selling Points

Suitable for **VW-1** and **FT-1** cables.

Halogen-free flame retardant

Hydrolysis and micro-organisms resistance, **low temperature flexibility** (-40°C)

Best End-Use Markets and Applications

Consumer Electronics Automotive EV Charging Industrial Drag Cables

Certification and Standards

UL94 V-0 at 0.8 and 3.2 mm jacket thickness

REACH, RoHS and IMDS

Offset Guide

Lubrizol Estane® 58202, 58370, ZHF 95AT and ZHF 92AT

Pricing and Availability

 – see Price List.

Sample material is available

Due to high demand, forecast recommended for commercial volumes.

General Product Information

Property	Value	Unit	Test Method
Density	1.25	g/cm ³	ISO 1183-1-a
Hardness	92	Shore A	DIN ISO 7519-1 (3s)
Tensile strength	17	MPa	DIN 53504-S2
Elongation at break	540	%	DIN 53504-S2
Tear strength	60	N/mm	DIN ISO 34-1Bb
Abrasion loss	60	mm ³	DIN ISO 4649-A
Change of Tensile Strength after 7d air aging at 113°C	8	%	DIN 53504-S2
Change of Elongation at break after 7d air aging at 113°C	-7	%	DIN 53504-S2

Flat films (thickness 1,6mm) are manufactured by extrusion from pre-dried granules (water content less 0,02%). The flat films are aged 20 hrs at 100°C. Specimens are cut from flat films. Test conditions: 23°C ± 2°C and 50% ± 6% rel. humidity.

Flammability and Smoke Density/Toxicity

Property	Value	Unit	Test Method
Flammability (UL94-V)	V-0	0.8, 3.2 mm	UL94 - V
Conventional Toxicity Index (smoke gas toxicity)	44.1	ITC at 600°C	NFX 70-100, Parts 1+2: 2006-04
Smoke Density Flaming mode	245	Ds max.	NF X 10-702, Part 1: 1995-11
Acidity of gases during combustion	8.1	pH - value	DIN EN 50267-2-2: 1999
	56.4	Conductivity (µS/mm)	
Determination of burning behaviour by oxygen index	26	LOI - Limiting Oxygen Index [%]*	ISO 4589 Part2: 2006-06)

(1) Same cable construction * measured by 1.6mm film

Rolling Stock Applications - Fire Protection on Railway Vehicles DIN EN 45545-2 (2013-08) R22/R23

Property	Value	Unit	Test Method
Smoke Density	245*	Ds max.	EN ISO 5659-2: 25 kWm ⁻²
Toxicity	0.62	CIT _{NLP}	NF X70-100-1 and -2
Oxygen Volume (%)	26	%	EN ISO 4589-2: OI
Rating R22/23	No rating	--	--

*screening test for smoke density

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