

Halguard® E 59002

Teknor Apex Company - Polyolefin

Saturday, September 14, 2024

General Information

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Latin America • North America	
Features	• Electrically Insulating • Filled • Flame Retardant	• Good Electrical Properties • Halogen Free • Low Smoke Emission	• Sunlight Resistant (720 hours) • UV Stabilized
Uses	• LSZH Insulation	• LSZH Jacketing	
Agency Ratings	• UL 94	• UL AATJ2	
Regulatory Statement	• Due to the frequent updates to regulations, specifically, California Proposition 65, EU REACH SVHCs, and RoHS, please contact Teknor Apex for the most up to date compliance statement, or refer to section 15 of the product SDS.		
Appearance	• Black	• Colors Available	• Natural Color
Forms	• Pellets		
Processing Method	• Wire & Cable Extrusion		

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.13	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/10.0 kg)	8.8	g/10 min	ASTM D1238
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	10.6	MPa	ASTM D638
Tensile Elongation (Break)	530	%	ASTM D638
Flexural Modulus	111	MPa	ASTM D790
Elastomers	Nominal Value	Unit	Test Method
Tear Strength ²	38.2	kN/m	ASTM D624
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 15 sec, Operating Stand)	85		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Continuous Use Temperature	105	°C	ASTM D794
Brittleness Temperature	-38.0	°C	ASTM D746
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity			ASTM D257
23°C	4.5E+14	ohms·cm	
50°C	4.3E+13	ohms·cm	
Dielectric Constant (1 MHz)	2.92		ASTM D150
Dissipation Factor (1 MHz)	9.3E-3		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.6 mm)	V-0		UL 94
Oxygen Index	33	%	ASTM D2863

Revision Date: 5/22/2024

The information and recommendations contained in this bulletin are, to the best of our knowledge, accurate and reliable but no guarantee of their accuracy is made. All products are sold upon condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes and uses and purchasers assume all risks and liability for the results of use of the products, including use in accordance with seller's recommendations. Nothing in this bulletin constitutes permission or a recommendation to practice or use any invention covered by any patent owned by this company or by others. There is no warranty of merchantability and there are no other warranties for the products described.

Halguard® E 59002

Teknor Apex Company - Polyolefin

Additional Information

Acid Gas Emission:

- Halogen Acid Gas Content, % : <0.5% IEC 60754-1
- pH : 8.4IEC 60754-2
- Conductivity, $\mu\text{S}/\text{mm}$: 24.6 IEC60754-2

Sunlight Resistance (Exposed for 720 hours in a Twin Carbon Arc Weatherometer)..... UL1581

- Retention of Tensile Strength (%): 91%
- Retention of Elongation at Break (%): 96%

Properties Determined from Wire (Tested from 18 AWG wire with 0.016" (0.406 mm) thick insulation)

VW-1 Vertical Flame Test: Pass UL1581

Cable Flame Test: Pass UL1581

Smoke Density, % optical transmission: 66% IEC 61034

Deformation at 150°C, % : 0% UL1581

Short-Term Insulation Resistance in Water at 15°C, G?-m: 23.5 UL62

Heat Shock at 150°C: Pass UL62

Cold Bend at -40°C: Pass UL62

Data Sheet Applies to Colors Listed Below:

Natural (1095587)

Black 1 (1135036)

11/19-lc

Processing Information

Extrusion

Nominal Value Unit

Melt Temperature

205 °C

Notes

¹ Typical properties: these are not to be construed as specifications.

² Die C

Teknor Apex Company Corporate Headquarters

In U.S. for Vinyls, TPEs, Colorants,

Engineered Thermoplastics (Chem Polymer)
505 Central Avenue
Pawtucket, Rhode Island 02861 U.S.

Phone: 401-725-8000

Fax: 401-725-8095

Toll Free (U.S. only) 800-556-3864

www.teknorapex.com

info@teknorapex.com

Teknor Apex B.V.

Brightlands Chemelot Campus Umonderbaan
22

6167 RD Geleen, Netherlands

Phone: +31 46 7020 950

Fax: +31 46 7020 990

www.teknorapex.com

tpe@teknorapex.com

Teknor Apex (Suzhou) Advanced Polymer Compounds Co. Pte. Ltd.

No. 78 Ping Sheng Road

Suzhou Industrial Park
Jiangsu, China 215126

Phone: (86) 512-6287-1550

Fax: (86) 512-6288-8371

www.teknorapex.com

infotaap@teknorapex.com

Teknor Apex Asia Pacific PTE. LTD.

41 Shipyard Road

Singapore 628134

Phone: (65) 6265-2544

Fax: (65) 6265-1821

www.teknorapex.com

infotaap@teknorapex.com

Revision Date: 5/22/2024

The information and recommendations contained in this bulletin are, to the best of our knowledge, accurate and reliable but no guarantee of their accuracy is made. All products are sold upon condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes and uses and purchasers assume all risks and liability for the results of use of the products, including use in accordance with seller's recommendations. Nothing in this bulletin constitutes permission or a recommendation to practice or use any invention covered by any patent owned by this company or by others. There is no warranty of merchantability and there are no other warranties for the products described.