PRODUCT DATA SHEET

22.11.2016 Ed.1

Polypropylene
FR4852

Halogen Free Flame Retardant Polypropylene Compound

Description

FR4852 is a halogen free flame retardant polypropylene compound for Primary Automotive Wire.

Applications

FR4852 is intended for use as a 125 °C rated primary insulation for automotive thin wall wires of 2,5 mm² or 14 AWG conductors and larger.

Specifications

FR4852 meets the applicable requirements as below when processed using sound extrusion practice and testing procedure:

SAE J1128/J1127
Chrysler MS-12441
Ford ES-AU5T-1A348-AA
GMW15626
ISO 6722

Physical Properties

Property	Typical Value Data should not be used for specification work	Test Method
Density (Compound) (23 °C)	1270 kg/m³	ISO 1872-2/ISO 1183
Melt Flow Rate (230 °C/2,16 kg)	0,9 g/10min	ISO 1133
Tensile Strain at Break	> 300 %	IEC 60811-1-1
Tensile Strength	> 20 MPa	IEC 60811-1-1
Retention of Tensile Strength after Ageing (168 h, 165 °C)	> 50 %	SAE J1128
Retention of Elongation after Ageing (168 h, 165 °C)	> 50 %	SAE J1128
Brittleness temperature	< -40 °C	ISO 6722
Hardness, Shore D	60	ISO 868

Electrical Properties

Property	Typical Value Data should not be used for specification work	Test Method
Dielectric constant (50 Hz) [1]	3	IEC 250

[1] 23 °C

Other properties

Property	Typical Value Data should not be used for specification work	Test Method
Limiting Oxygen Index	24 %	ISO 4589-2
Flame Test	Pass	ISO 6722/SAE J1128
UL Horizontal Flame Test	Pass	UL2556

Borealis AG | Wagramer Strasse 17-19 | 1220 Vienna | Austria
Telephone +43 1 224 00 0 | Fax +43 1 22 400 333
FN 269858a | CCC Commercial Court of Vienna | Website www.borealisgroup.com

BOREALIS

PRODUCT DATA SHEET

22.11.2016 Ed.1

Polypropylene
FR4852

Needle Scrape Abrasion	Pass	ISO 6722
Sandpaper Abrasion	Pass	ISO6722/SAE J1128
Long term heat ageing (3000 h, 125 °C)	Pass	ISO 6722

Processing Techniques

A melt temperature of 250 °C and preheating of the conductor is recommended.

Packaging

Package:	Smallbins
Package:	25 kg Bags

Storage

FR4852 normally does not need pre-drying unless the material has been stored in a moist environment for a long period. In such cases drying in dehumidified air for 4 hours at 70ºC will normally reduce the moisture content to an acceptable value.

Safety

Please see our "Safety data sheet" / "Product safety information sheet" for details on various aspects of safety, recovery and disposal of the product. For more information, contact your Borealis representative.

Borealis AG | Wagramer Strasse 17-19 | 1220 Vienna | Austria
Telephone +43 1 224 00 0 | Fax +43 1 22 400 333
FN 269858a | CCC Commercial Court of Vienna | Website www.borealisgroup.com

BOREALIS

PRODUCT DATA SHEET

22.11.2016 Ed.1

Polypropylene
FR4852

Disclaimer

The product(s) mentioned herein are not intended to be used for medical, pharmaceutical or healthcare applications and we do not support their use for such applications.

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication; however we do not assume any liability whatsoever for the accuracy and completeness of such information.

Borealis makes no warranties which extend beyond the description contained herein. Nothing herein shall constitute any warranty of merchantability or fitness for a particular purpose.

It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.

No liability can be accepted in respect of the use of any Borealis product in conjunction with any other products and/or materials. The information contained herein relates exclusively to our products when not used in conjunction with any other material unless as specifically provided for in the test methods stated above.

Borealis AG | Wagramer Strasse 17-19 | 1220 Vienna | Austria
Telephone +43 1 224 00 0 | Fax +43 1 22 400 333
FN 269858a | CCC Commercial Court of Vienna | Website www.borealisgroup.com

BOREALIS