



# Automotive Thermoset Fire+ Felt

## Insulation specially designed for battery protection of hybrid and electric vehicles

Product designed to mitigate fire risk in the vehicle, suitable for battery casing and thermal barrier.

This product is left uncured for subsequent re-processing by thermocompression.



### RECYCLED GLASS

ISOVER glass wool for automotive are already made of 80% of recycled glass. Moreover, glass wool is fully and infinitely recyclable.



### FIRE REACTION

Flame Vertical Testing - V-O (similar to UL94)\*



### HIGH SERVICE TEMPERATURES

Maintains structural integrity and performance at elevated temperatures\*



### MECHANICAL RESISTANCE

Excellent compression recovery and stability\*



### THERMAL INSULATION

High-performance thermal insulation\*

\* Performances achieved after re-processing by thermocompression.

Due to the various possibilities of use, ISOVER cannot be held liable for any deviation of the performances which could be due to, but not limited to, the manufacturing process of the converter except for any mandatory situation resulting from the applicable legal provisions concerning liability for defective products.



## AUTOMOTIVE THERMOSET FIRE+ FELT - MATERIAL DESCRIPTION

CHARACTERISTIC	SYMBOL	UNIT	QUANTITIES AND DECLARED VALUES	STANDARD
Automotive Description	-	-	Uncured glass wool felt impregnated with a formo-phenolic and urea binder	-
Material	-	-	Isover glass wool complies with the European Regulations: REACH, CLP and BPR. Isover glass wool is EUCEB and RAL certified.	-
Facing	-	-	3 different facing options: - Polypropylene non-woven tissue 17 g/m <sup>2</sup> (PP) - White polyester non-woven tissue 22 g/m <sup>2</sup> (PEST) - Black polyester non-woven tissues 65 g/m <sup>2</sup> with hydro and fire retardant treatment	-
Characteristics	-	-	Product range: from 360g/m <sup>2</sup> to 1800g/m <sup>2</sup> Average dry binder content: 6,5% (in weight) Average moisture content: 2,5% (in weight)	-
Delivery form	-	-	Material available in rolls Length: depending on the gram weight Width: from 880mm to 1530mm depending on the gram weight Average diameter of roll: 650mm or 780mm Material also available in roll of blankets: dimensions upon request Rolls are packed in polyethylene bags. Rolls kept packed shall be stored between 5°C and 40°C and shall be processed within 45 days after date of production.	-
Application field	-	-	Designed for thermosetting process (200°C - 210°C / max. density of the product after compression should not exceed 300kg/m <sup>3</sup> ).	-

## TECHNICAL INFORMATION - THESE DATA ONLY CONCERN A PROCESSED PRODUCT

The technical performances provided below, have been measured in internal laboratory and then are communicated for indication only. Due to the various possibilities of use, ISOVER cannot be held liable for any deviation of the performances which could be due to, but not limited to, the manufacturing process of the converter except for any mandatory situation resulting from the applicable legal provisions concerning liability for defective products.

CHARACTERISTIC	SYMBOL	UNIT	QUANTITIES AND DECLARED VALUES	STANDARD			
Reaction to fire	500-1200g/m <sup>2</sup> - 2mm		Flame Vertical Testing: V-0 rating	Similar testing method to UL94 standard			
	500-1200g/m <sup>2</sup> - 30mm						
Reaction to fire: Euroclass	1200g/m <sup>2</sup> - 5mm		A2-s1,d0 classification (little or no heat release, little or no smoke, no flammable droplets)	EN 13501-1			
	1200g/m <sup>2</sup> - 20mm						
Thermal Resistance	500-1200g/m <sup>2</sup> - 2mm		Hotplate testing 800°C for 5 min: No ignition; cold side < 130°C	-			
	500-1200g/m <sup>2</sup> - 30mm						
Thermal conductivity'	-	[°C]	10	100	150	200	EN 12667
1000g/m <sup>2</sup> - 10 mm	λ	[mW/(m.K)]	31	39	44	50	
1000g/m <sup>2</sup> - 20 mm			31	41	48	56	
1000g/m <sup>2</sup> - 30 mm			32	45	54	64	
Thermal behaviour	-		Service temperature up to 230°C with stable dimensions				ISO 7884-8

\*Depending on gram weight, please contact us for more details



### [www.isover-technical-insulation.com](http://www.isover-technical-insulation.com)

The technical information corresponds to our present state of knowledge and experience at the date of printing (see imprint). But no legal guarantee can be given, unless it has been explicitly agreed. The state of experience and knowledge is developing continuously. Please see to it that you always use the latest edition of this information. The described product applications do not take special circumstances in consideration. Please verify whether our products are appropriate for the concrete application. For further information please contact our Isover sales offices. We deliver only according to our terms of trade and terms of delivery.

SAINT-GOBAIN ISOVER · Tour Saint-Gobain 12 place de l'Iris 92096 La Défense cedex - France

