

Press release

TechnoCompound introduces emission-optimized TechnoFiber Grades for the Automotive Industry

New Top Quality Long Glass Fiber Reinforced PP Compounds

Bad Sobernheim, Germany, September 2009 – Compounding Specialists, TechnoCompound of Bad Sobernheim, have expanded their portfolio of TechnoFiber PP-LGF L H E-grades with completely new, particularly low-odor and low-emission materials for automotive interiors. Long glass fiber reinforced polypropylene (PP) compounds are used mainly by the automotive industry and its secondary suppliers, in for example, instrument panels, seat components and door modules.

The reduced odor and emission levels of these innovative LGF reinforced grades from Technocompound have been verified independently. Extensive testing by leading internationally-recognized laboratories such as the EDAG Polymer Service, SGS Institut Fresenius and IMAT UVE confirm their excellent fogging and VOC and TVOC emission characteristics and minimal odor levels. Not only were values for fogging and VOC considerably below the limits set by leading car manufacturers, the TVOC measurements were also significantly below the prescribed level of 50 µg carbon per gram of tested material. The top ratings of 2.5 and 3.0 in the odor test to VD 270 round off the PP compounds' outstanding emission-optimized property profile. Data from OEMs also provide impressive confirmation.

A comparison makes it clear: conventional PP LGF grades only achieve a rating of 4 to 5. "The TechnoFiber odor values are excellent and have already led to much positive feedback from automotive manufacturers and secondary

suppliers", states Hans-Dieter Voss, Managing Director of TechnoCompound. "Now we have objective findings which prove the excellent quality of our new products.

The TechnoFiber PP LGF HE grades are based on new formulations which have patents pending. They are produced by a two-step pultrusion process which is currently unique. The small rod-shaped granules contain 10 to 60% glass fibers with an initial length of 10 mm. Due to the special production process, the long glass fiber reinforced PP granules have a very high degree of impregnation. "This is confirmed by comprehensive in-house testing on both our products and those of competitors" explains Darko Knezovic, Technical Product Manager at TechnoCompounds. The new grades are therefore characterized by particularly high impact resistance and very good surface finish – with the new compounds each individual fiber is not only surrounded by the polymer matrix but firmly coupled to it chemically.

The high level of impregnation and the excellent flowability of the new TechnoFiber grades result in an extraordinarily homogeneous distribution of glass fibers even in thin-walled ribs as has already been validated externally. For the processor this results in significant benefits: injection molding can produce very low stress components and, at the same time, cylinder and melt temperatures can be significantly lower. Injection and clamping forces can be reduced and cooling and cycle times shortened. The process is thus energy optimized and makes a significant positive contribution to the energy balance of a car.

"It goes without saying", states Voss in conclusion, "that such material does not require pre- or post-treatment. Our concept is 'ready-to-use', which offers many advantages to the processor in terms of logistics, reproducibility and quality. These outstanding new quality grades were developed in record breaking time and further developments are already in the pipeline. Our new two-step procedure offers *inter alia* the possibility of coloring long glass fiber reinforced

PP compounds. The first structural components with excellent surface finish are already being mass produced. Our lean organization and modern output-optimized plant enable us to offer these grades together with comprehensive technical back-up at very competitive prices".



Technocompound: Technocompound currently has 70 employees. Turnover in 2008 was Euro 35 million. More than half of the turnover consists of the company's polypropylene (PP) compounds. The main area of application of these plastics is in the automotive industry and its secondary suppliers. TechnoCompound's lean organization and modern output-optimized plant enable the company to offer these grades at very competitive prices. The full service includes on-site technical support and development of individual compounds tailored for specific applications.

Further information:

Hans-Dieter Voss, TechnoCompound GmbH,
Am Gefach, D-55566 Bad Sobernheim
Tel.: +49(0) 67 51/8 56 05-3 92, Fax: +49(0) 67 51/8 56 05-53 92
E-Mail: dieter.voss@technocompound.com

Editorial contact and voucher copies:

Karin Panknin, K.Panknin SOLUTIONS GmbH,
Humboldtstraße 28, D-60318 Frankfurt
Tel.: +49(0) 69/800 855-12, Fax: +49(0)69/800 855-20
E-mail: karin.panknin@solutions-pr.de

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Table:

Significant reduction of odor and emissions – the most important test results of TechnoFiber PP-LGF L H E types in vehicle interiors.

Image:

The TechnoCompound GmbH headquarters in Bad Sobernheim, Germany. The company, which is specializing in compounding for high-quality plastics, stands out by its modern production facilities with optimized output.

TechnoFiber PP LGF 20-10-01 L H E (48886)*

Fahrgastinnenraum / Ergebnisse Prüfungen

Prüfung	VDA / OEM- Spezif.	Prüfendes Institut OEM	Datum	Grenzwerte	Ergebnis	Prüfkörper
VOC Gesamtemission	VDA 278	SGS Fresenius	30.04.09	Daimler: 100 ug/g	45 ug/g ; Zweitwert 38 ug/g	Prüfkörper 80x80x2mm ³
FOG Gesamtemission	VDO 278	SGS Fresenius	30.04.09	Daimler: 250 ug/g	130 ug/g	Prüfkörper 80x80x2mm ³
TVOC Gesamt-C-Emission	VW PV 3341, 1995-03	IMAT UVE	08.05.09	< 50 ugC/g	5,90 ugC/g	Prüfkörper 80x80x2mm ³
TVOC Gesamt-C-Emission	Kammerluftprobe GS 07014-3	BMW	15.06.09	Akzeptanzwert <2500 (ug/m ³)/kg	2076 (ug/m³)/kg	Prüfkörper 80x80x2mm ³
Geruchsprüfung bei 80°C	VDA 270	SGS Fresenius	02.07.09	≤3	2,5	Prüfkörper DIN Zugstäbe
Geruchsprüfung bei 80°C	VDA 270	OEM A / OEM B	07.08.09	≤3	3.0	Prüfkörper DIN Zugstäbe

Prüfkörper sind weder vor- noch nachbehandelt / getempert worden!
Prüfkörper innerhalb von 8 h nach Herstellung eingeschweißt und verschickt

)*bisherige Produktbezeichnung: TechnoFiber PP LGF 20-10-01 L HI E (CM 509 03 0234)