CERTIFICATE

Management system as per
DIN EN ISO 9001 : 2015

In accordance with TÜV NORD CERT procedures, it is hereby certified that

MonoPan Composites GmbH & Co. KG
Industrie- und Gewerbegebiet 10
07426 Königsee-Rottenbach
Germany

MonoPan®
COMPOSITES

applies a management system in line with the above standard for the following scope

Manufacturing and sales of composite panels

Certificate Registration No. 08 100 992374
Audit Report No. 3523 7376

Valid from 2019-02-27
Valid until 2022-02-26
Initial certification 1999

Certification Body
at TÜV NORD CERT GmbH

Essen, 2019-02-06

This certification was conducted in accordance with the TÜV NORD CERT auditing and certification procedures and is subject to regular surveillance audits.

TÜV NORD CERT GmbH Langemarckstraße 20 45141 Essen www.tuev-nord-cert.com

IAF

DAkkS
Deutsche
Akkreditierungsstelle
D-ZM-12007-01-01

1 – COMPANY AND PRODUCT IDENTIFICATION

Product identification: **MonoPan® PP [80...120] T[N/B]**

Manufacturer: **MonoPan Composites GmbH & Co. KG**
Address: Industrie- und Gewerbegebiet 10
D-07426 Königsee-Rottenbach/Thür.
Phone : +49 (0)36739 31-5
Fax: +49 (0)36739 31-666
E-Mail: zentrale@monopan.de
Website : www.monopan.de

2 - COMPOSITION, INFORMATION ABOUT CONTENT

Description:

- **thermoplastic content**
(depending on panel thickness)
thermoplastic content: 63-82%
- of which polypropylene > 80%

- **mineral content**
(depending on panel thickness)
glass-fiber: 18-37%
(E-glass)

3 - HAZARD IDENTIFICATION

Hazards identified are:

Product temperatures over 232°C can lead to the release of hazardous substances.
The melted product sticks to the skin and may cause burns.

When machining the product static electricity may occur, which could lead to discharging. Thus the product needs to be grounded when cleaning with highly flammable cleaning agents.

The glass filaments are not "respirable" as their nominal diametres are larger than 9 µm, far over the diameter of 3µm defined by the World Health Organisation for "respirable" fibres.

Hazards identified are:
· mechanical irritation (itching)
· the formation of respirable dusts and non-respirable filaments
· extremely rare possibilities of allergic reactions.

Fire and explosion:

Under normal environmental conditions no combustible gases are generated.

4 – FIRST AID

General information:	Under normal environmental conditions no combustible gases are released. Product temperatures over 232°C can lead to the release of hazardous substances.
INHALATION:	Remove from the scene of exposure to fresh air. In case of severe inhalation of smoke, remove the victim from the hazardous area, using suitable respirators. Consult a doctor if necessary.
SKIN CONTACT:	Wash copiously with lukewarm soapy water without rubbing excessively. In case of contact with melted product, cool with cold water as soon as possible. Do not try to remove the solidified product from the skin. Contact a doctor immediately.
EYE CONTACT:	Flush in running water (for at least 10 minutes) and consult medical assistance if necessary.
ALLERGIC REACTIONS:	Remove from the scene of exposure.

5 - FIRE FIGHTING

Recommended extinguishing media:	water or chemical powder
Explicit hazard:	Combustion gases are basically carbon dioxide and water vapour. There may be small quantities of carbon monoxide, oxides of sulphur, aldehydes, reactive hydrocarbons and phosphorous compounds in small quantities, which make it necessary to use protective equipment in the event of a major fire.
Special measures:	Protective fire fighting equipment necessary.

6 - ACCIDENTAL SPILLAGE

Personal protection:	See chapter 8.
Environmental protection:	The product can therefore be considered as inert industrial waste, or even common industrial wastes, as defined by national and local regulations. All waste and scrap material should be disposed of in accordance with applicable, national, federal, state and local regulations.
Cleaning:	Vacuum clean, sweep or shovel into containers waste (if available selective collection for recycling).

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7 – HANDLING AND STORAGE

Handling :	- wear gloves, and garments with sleeves - be aware of sharp edges - avoid prolonged contact with the skin - clean work garment preferably with vacuum cleaner over compressed air. - ground the product when cleaning with highly flammable cleaning agents.
Storage:	Storage conditions: +15 to +35°C, at 35-55% relative humidity - no open fire - protect from direct sunlight - use electrically secure machinery with ground - dry storage - protect from incompatible materials, see chapter 10.

8 - EXPOSURE CONTROL – PERSONAL PROTECTION

General protection and hygiene :	Do not eat or drink when machining the product. Use appropriate means to reduce saw dust and/or fumes. Try to reduce the concentration of fibres likely to cause irritation. Based on the irritation character of fibres it is recommended to use: - gloves and garments with sleeves and long leggings - respirator and protective goggles in case of increased concentration of dust. Furthermore respect the parameters/limit values for inert dusts.
Personal protection :	- Respirators: in exceptional cases, like increase concentrations of dust. - skin protection: use gloves, garments with sleeves and long leggings, protective cream for persons with sensitive skin

9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	solid
Form/Colour:	Panel, natural colour or black (pure polymer colour), with embedded endless glass fibres
Odour:	none
Melting point:	160°C
Flame point:	> 320°C
Decomposition temperature:	> 300°C
Flash temperature:	> 350°C
Area weight:	approximately 2,5 to 7 kg/m²
Solubility in Water:	very low

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10 - STABILITY AND REACTIVITY

Stability:	The product is under normal conditions chemically stable.
Hazardous reactions:	No hazardous reactions are known
Decomposition products:	In conditions of a sustained fire, as well as water vapour and CO_2, it is possible to generate small quantities of carbon monoxide, oxides of sulphur, aldehydes, reactive hydrocarbons and low concentrations of phosphorous compounds.
Avoidable conditions:	Contact with fluor, concentrated acid and alkaline media.

11 – TOXICOLOGICAL INFORMATION

Acute Toxicity:	not relevant
Localised effects:	possible temporary irritations (see chapter 3)
Sensitisation:	in rare cases allergic reaction
Remarks to toxicity:	According our experience and best knowledge, the product does not cause any hazard to health, when worked in an appropriate fashion.

12 - ECOTOXICOLOGICAL INFORMATION

Ecotoxicological properties:	the product is not toxic.. The polymers, by virtue of their molecular weight and their nature, are without any ecotoxicological effects.
General information:	The product floats on water. The product is not biodegradable.

13 - WASTE DISPOSAL

Recommendation:	The product should be shredded and recycled by an approved recycling company.
Disposal:	Product waste can be disposed of as inert waste or as common industrial waste, depending on local regulations.
Packaging:	Clean cardboard, wood, plastic (film or bags) and packaging can be eliminated in units specific to these products (i.e. for recycling or use as fuels).

14 – TRANSPORT

International regulations:	The product is not considered as hazardous goods by transport regulations.

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15 – REGULATORY INFORMATION

Identification:	The product does not
National regulations:	have to be listed
Other regulations, limitations	according EC-regulations:
and prohibitions:	

16 – OTHER INFORMATION

This Technical Safety Sheet is in addition to the Product Specification file and other technical documents issued by MonoPan® Composites but does not replace them. The information given by this document is based on the best knowledge at the date shown. It is given in good faith. Furthermore, users attention is drawn to the possible risks run when the product is used for any purpose other than the one for which it was designed.

This Technical Safety Sheet does not exempt users from knowing and applying the rules regulating their activities. Users assume full responsibility for applying the appropriate safety measures when the product is used.

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