

# CF PA-12

UPDATE: 1.09.2020

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier Trade name Filament CF PA-12 1,75; Filament CF PA-12 2,85m

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses Thermal processing: FDM/FFF

1.2.2. Uses advised against

This material is not suitable for medical use, unless the medical device has been tested in accordance with relevant national and international regulations and the required safety testing has been performed. Finnotech accepts no responsibility for the use of this material in the aforementioned applications.

1.3. Company

Producent/Dostawca: Omni3d sp z o.o.  
Adres: ul. Św Michała 43 Poznań 61-119  
Telefon: 886 618 690  
Adres e-mail: sales@omni3d.com

1.4. Emergency telephone number

EU-wide emergency number: 112

## 2. HAZARD IDENTIFICATION

2.1. Classification of the substance/mixture

According to Council Regulation (EC) No. 1272/2008 (CLP), the material is not classified as hazardous.

2.2. Label elements

The material does not require labeling in accordance with Directive 67/548 / EEC and its amendments (special case - alloys, preparations containing polymers and elastomers).

2.3. Other hazards

Risk of slipping in case of spilling the product. Processing vapors or vapors must not be inhaled. The molten material can cause burns. Dusts and particles formed during the application of the product may cause mechanical irritation of the eyes, skin and mucous membranes. Sanding shaped articles may exacerbate this phenomenon, therefore inhalation of any dust in the environment should be avoided.



### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1. Substances

Not applicable.

#### 3.2. Mixtures

Chemical characteristics of the mixture

Description polyamide, carbon fiber

Additional information on the composition can be found in the technical literature.

Hazardous substances in the material - none.

Conscious SVHC substances added in a concentration greater than 0.1% by weight - none.

### 4. FIRST AID MEASURES

#### 4.1. Description of first aid measures

In case of irritation due to contact with the eyes

Rinse with plenty of water while holding the eyelids rolled up. If irritation persists, consult a physician.

In case of skin irritation due to contact with the filament

Wash with soap and water.

In case of skin contact with molten plastic material

Immediately cool with water and consult a doctor.

Inhalation of dust

Move the injured person to fresh air and consult a doctor.

Inhalation of gaseous decomposition products in the event of an accident

Move the injured person to fresh air and consult a doctor.

#### 4.2. Most important symptoms and effects, both acute and delayed

Mechanical irritation caused by reaction of product particles.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Move victim to a ventilated room and consult a physician.

### 5. FIREFIGHTING MEASURES

#### 5.1. Extinguishing media

All types of extinguishing media (water, foam, carbon dioxide, powder, etc.).

Extinguishing media which must not be used for safety reasons: none.

#### 5.2. Special hazards arising from the substance or mixture

Carbon monoxide, carbon dioxide, nitrogen oxides (NO<sub>x</sub>), low molecular weight hydrocarbons, azo compounds.

Under certain fire conditions, the presence of traces of other toxic substances cannot be excluded.

The formation of additional decomposition and oxidation products depends on the conditions of the fire.

#### 5.3. Advice for firefighters

Use self-contained breathing apparatus and fireproof clothing.



## 6. ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: no special measures required.

For emergency responders: no special measures required.

### 6.2. Environmental precautions

No specific measures are required.

### 6.3. Methods and material for containment and cleaning up

In case of spilling, collect it mechanically, not generating dust. Do not discharge into drains or soil.

### 6.4. Reference to other sections

Information on exposure controls / protection of personnel and guidance on disposal is provided in Sections 8 and 13.

## 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

When handling, avoid the formation of significant amounts of particles with a particle size of less than 500 micrometers, in these cases referring to the guidelines contained in the standard NFPA 654 (National Fire Protection Association) or similar. Take appropriate measures to prevent the formation of electrostatic discharges (grounding of equipment, etc.) in accordance with the guidelines of the Manual CLC / TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity) or similar.

The material contains carbon fibers, therefore it is necessary to check the degree of protection of the station, electrical devices and, in particular, compliance in the presence of conductive dust.

### 7.2. Conditions for safe storage, including any incompatibilities

Store locked up in a dry place away from weather conditions.

### 7.3. Specific end use(s)

For use other than that recommended, contact the supplier.

## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

### 8.1. Control parameters

*Occupational Exposure Limits (ACGIH)*

TLV (NDS)	10 mg/m <sup>3</sup>	TLV-TWA	inhaled powder
	3 mg/m <sup>3</sup>	TLV-TWA	inhaled dust



#### Definitions

TLV-TWA (Acceptable Exposure Limits - Mean Over Time): Average concentration over an 8-hour working day and 40-hour working week that does not cause harmful effects to exposed workers.

Derived No Effect Levels (DNELs) no data available

Predicted No Effect Concentration (PNEC) no data available.

### 8.2. Exposure controls

When using the material and processing its components, provide appropriate means and protective devices to remove any dust in the work environment. During extrusion, remove fumes or vapors using an appropriate exhaust system. In the case of emission of pollutants into the atmosphere during the processing of plastic materials, observe the concentration limits established by the competent authorities and applicable by law.

#### Eye protection

When handling in the presence of dust, it is recommended to use protective goggles EN 166.

It is recommended to use a protective cover during processing in the presence of liquids.

#### Skin protection

It is recommended to wear EN 388 (2132) gloves and protective clothing when handling in the presence of dust. When processing in the presence of fumes and dust, it is recommended to use protective clothing and gloves marked EN 388 (4131), EN 407 (X2XXXX), EN 374-3.

#### Respiratory protection

It is recommended to use the FFP2 protective mask when using and processing the material in the presence of dust or gas / air.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

pH	not relevant.
Form	solid in the form of a fiber (filament).
Odor	characteristic.
Color	black.
Density	1.03 – 1.12 g/cm <sup>3</sup>
Melting point / melting range	> 300 °C
Self-ignition	400 °C
Flammability	is not flammable (Directive 87/548 / EEC as amended).
Thermal decomposition	350 °C
Explosive properties	not explosive as marketed.

### 9.2. Other information

Solubility in water it does not dissolve at 20 °C.

## 10. Stability and reactivity

### 10.1. Reactivity

No hazardous reactions if the product storage and handling requirements / guidelines are followed.



## 10.2. Chemical stability

The product is stable if the storage and handling requirements / guidelines are followed.

## 10.3. Possibility of hazardous reactions

No known hazardous reactions. The product is chemically stable.

## 10.4. Conditions to avoid

Before processing, the product is recommended. Attention! If the material is used above the highest temperature suggested (value indicated in the technical literature), slight decomposition may occur. The degree of decomposition increases with longer residence times in the heating zone. If the process is interrupted, make sure that the material does not remain in the hotplate: it may decompose and / or increase the pressure in the hotplate. Avoid contamination with other materials that may create harmful gases and vapors during processing. During cleaning, prevent spread of fumes from molten material in the working environment.

## 10.5. Incompatible materials

Avoid contamination with other materials that could generate harmful gases and fumes during the transformation phase.

## 10.6. Hazardous decomposition products

Low molecular weight hydrocarbons, azo compounds.

# 11. TOXICOLOGICAL INFORMATION

## 11.1. Acute toxicity

No data available.

## 11.2. Skin corrosion/irritation

Dust generated when working with this material may mechanically irritate the skin.

## 11.3. Eye corrosion/irritation

Dust generated when working with this material may cause mechanical eye irritation.

## 11.4. Respiratory sensitization

Not available.

## 11.5. Skin sensitization

Not available.

## 11.6. Mutagenicity

Not available.

#### 11.7. Carcinogenicity

No data available.

#### 11.8. Reproductive toxicity

Not available.

#### 11.9. Specific target organ toxicity (single exposure)

Not available.

#### 11.10. Specific target organ toxicity (repeated exposure)

Not available.

#### 11.11. Aspiration hazard

Dust generated from handling this material may mechanically irritate the upper respiratory tract.

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

Special studies of this material have not been carried out. It is practically insoluble in water and therefore release into water or soil is not expected. The data was taken from substances / products or similar compositions.

Toxicity to fish no information available.

Chronic toxicity to fish no information available.

Aquatic invertebrates no information available.

Chronic toxicity to aquatic invertebrates no information available.

Aquatic plants no information available.

Microorganisms no information available.

### 12.2. Persistence and degradability

Potentially non-biodegradable. It is expected to be durable.

### 12.3. Bioaccumulative potential

It is not expected to bioaccumulate.

### 12.4. Mobility in soil

Due to the morphology and composition of the product, it is impossible to get into the substrate.

### 12.5. Results of PBT and vPvB assessment

Material does not contain PBT (Persistent, Bioaccumulative, Toxic) or vPvB (Very Persistent, Very Bioaccumulative) substances.

### 12.6. Other adverse effects

No other environmental effects (ozone, global warming) were observed.

Water treatment plants: material can be removed from the water by mechanical separation. In accordance with EU regulations and national law, water in contact with material or printed elements may require special treatment before it is directed to the sewage system. If necessary, ensure the treatment of waste gases from vapor extraction plants when using the material in accordance with EE and national regulations.



## 13. DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

Material must be recycled, disposed of or incinerated in accordance with applicable local and national regulations. Anything that cannot be recycled or recovered must be handed over to an appropriate facility. Dispose of packaging and waste in accordance with the applicable local and national regulations.

## 14. TRANSPORT INFORMATION

### 14.1. Un number

Not applied.

### 14.2. UN proper shipping name

Not applied.

### 14.3. Transport hazard class(es)

Not applied.

### 14.4. Packing group

Not applied.

### 14.5. Environmental hazard

Not applied.

### 14.6. Special precautions for user

Not applied.

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applied.

## 15. REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulation/legislation specific for the substance or mixture

Legal references

classification and labeling

Dir. 2001/60/EC, Dir. 1999/45/EC, Dir. 92/32/EC, Dir. 67/548/EEC and its amendments, Council (EC) No 1272/2008

Occupational Health and Safety

D.M 26/02/2004, D.Lgs. 233/03 "ATEX", Dir. 98/24/EC, 89/391/EEC, 2009/104/EC, 89/656/EEC, 2004/37/EC, 2000/54/EC, 2003/10/EC, 2009/148/EC, D.Lgs. 80/2008, D.Lgs. no. 106 03/08/2009 atmospheric emissions

D.Lgs. n. 152 03/04/2006, DM 12/7/94, Dir. 2008/50/EC, Dir. 2010/75/EU

water protection

D.Lgs. n. 219 of 10/12/2010, D.Lgs. n. 152 of 03/04/2006, Dir. 91/271/EEC, 2000/60/EC, 2008/105/EC, 2009/90/EC, 2013/39/EU.



waste disposal

D.Lgs. n. 152 03/04/2006, Dir. 2008/98/EC, 94/62/EC, 2001/118/EC

WOO

D.Lgs. 475/92, D.Lgs. 10/97, D.M. 02/05/2001, Dir. 89/686/EEC, Dir. 93/68/EEC, Dir. 93/95/EEC, Dir. 96/58/EC.

This safety data sheet has been prepared in accordance with the following standards: Regulation (UW) No. 453/2010, - Regulation (EC) No. 1272/2008, - Regulation (EC) No. 1907/2006 (REACH), - Ministerial Decree 07/09/2002, - Dir. 2001/58 / EC, Dir. 1999/45 / EC, ISO 11014: 2009

## 15.2. Chemical safety assessment

Chemical safety assessment is not required.

## 16. OTHER INFORMATION

### 16.1. Indication of changes

No information available

### 16.2. Abbreviations and acronyms

CLP	Classification Labeling Packaging, Regulation (EC) No. 1272/2008 of the European Parliament and of the Council.
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals, Regulation (EC) No. 1907/2006 of the European Parliament and of the Council.
LD50	Lethal Dose 50 (50% lethal dose).
LC50	Lethal Concentration 50 (median lethal concentration).
NOAEL	No Observed Adverse Effect Level.
NOAEC	No Observed Adverse Effect Concentration.
LOAEL	Lowest Observed Adverse Effect Level (Lowest Observed Adverse Effect Level).
ACGIH	American Government Conference of Industrial Hygienists.
IARC	International Agency for Research on Cancer.
EC50	The ECx corresponds to the concentration of the test substance causing x% change in response (e.g. growth) over a specified time interval.
ErC50	Effective concentration of CE50 for growth rate inhibition.
ECHA	European Chemicals Agency.
PBT	Persistent, bioaccumulative and toxic.
vPvB	Very persistent and very bioaccumulative.

### 16.3. Key literature references and sources for data

The product safety data sheet has been prepared based on the documentation provided by the manufacturer of the granulate from which the filament product was made.

### 16.4. Relevant R phrases and H statements

No information available

### 16.5. Training advice

No information available





## 16.6. Further information

To the best of our knowledge, the information contained in this statement is accurate as of the date of publication. The information relates only to the product identified in this document when not used in conjunction with other products or materials. Omni3D Sp. z o.o. makes no warranties, expressed or implied, and assumes no liability in connection with the use of this information.

Omni3D Sp. z o.o. ensures that the product complies with the written specification when it leaves the factory. All other express or implied warranties and unlimited warranties of merchantability or fitness for a particular purpose are not provided.

The buyer confirms that it has sole control and can take responsibility that it has purchased a product that is fit for its purpose and will use it for its intended purpose. Any help and advice provided by Omni3D Sp. z o.o. in relation to the product, including formulation, manufacturing and testing for use or application of the product for the purposes specified by the purchaser, is made without warranty of any kind, including express or implied warranties of merchantability or fitness for a particular purpose.

Omni3D Sp. z o.o. is not liable for consequential or indirect damages. Any possible redress of the purchaser's claims (including claims for breach of warranty, negligence and liability for the risk taken) is limited to the replacement of the non-conforming product or the refund of the purchase price of the non-conforming product, or, for services, re-preparation of the material.

