

## Information about the content

<b>Scope:</b>	Plansee Composite Materials GmbH	<b>Prepared/Updated:</b>	Nießner Anna
		<b>Released:</b>	Goral Friedemann
<b>Valid from:</b>	03-May-2021	<b>Controlled:</b>	QM

This document is subject to electronic version control – confirm revision status before using.

## 1 Physical product properties\*

Feature	Unit	Value
Density	g/cm <sup>3</sup>	17,20 <sup>+0,4</sup> <sub>-0,3</sub>
Hardness	HV10	330 ± 30
Ultimate tensile strength	N/mm <sup>2</sup>	≥ 800
0,2% Yield strength	N/mm <sup>2</sup>	≥ 550
Fracture elongation	%	≥ 4

\* Typical RT-properties measured at sintered test specimen

All mechanical and physical properties (density, tensile strength, fracture elongation and hardness) are measured at room temperature at separated test specimen from the same furnace run as the material itself.

If test bars are machined from the actual production parts, there may be deviations from the properties in the table.

## 2 Chemical composition

Main components	Unit	Value
W	wt %	90

DENSIMET® D2M is according to RoHS directives (EU2002/95/EG, EU2000/53/EG, EU2006/122/EG) and REACH Regulation EC 1907/2006. Confirmations are available upon request.

PLANSEE Composite Materials GmbH confirms that the restricted hazardous substances in all products are below the following levels:



Details to our certificates  
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Restricted hazardous substance	RoHS Limit [ $\mu\text{g/g}$ ]
Cadmium (Cd)	100
Hexavalent Chromium (Cr <sup>6+</sup> )	1000
Lead (Pb)	1000
Mercury (Hg)	1000
Organic substances	1000

### 3 Dimensions and tolerances

Diameter and guaranteed production tolerances (standard dimensions – all values in mm)

All rods are also available in custom sized dimensions and tolerances on request.

Diameter	Tolerance	Standard Length	Tolerance	Run-out
Ø10 – Ø16	+ 0,4 + 0,2	250	+5 0	0,2
Ø20	+ 0,5 + 0,25	500	+10 0	0,2
Ø25 – Ø40	+0,6 +0,3	500	+10 0	0,2
Ø50 – Ø90	+0,7 +0,3	250	+10 0	0,2
Ø152 – Ø200	+2,0 +1,0	250	+10 0	0,2
Ø220	+2,0 +1,0	125	+10 0	0,2

General surface roughness Ra < 6,3 $\mu\text{m}$



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## 4 Packaging

### 4.1 Packaging and labelling

Each delivery will be packed with our standard packaging methods, guaranteeing a safe and cost efficient transport.

Special- or individual packaging should be used if the rods are stored under unusual conditions (aggressive atmosphere, sea air, ...) and can be arranged upon request.

The DENSIMET® rods must be kept in a dry place and protected from mechanical damage.

It's most suitable to keep the rods in their original packing until used.

Each package will be provided with a label including following information:

<b>Producer's name:</b>	<b>PLANSEE</b>
<b>PLANSEE order number:</b>	
<b>PLANSEE material number:</b>	
<b>Material description:</b>	<b>D2M</b>
<b>Batch number:</b>	
<b>Customer order number:</b>	
<b>Customer material number:</b>	
<b>Quantity:</b>	<b>Total quantity in Pcs.</b>
<b>Weight:</b>	<b>Total weight in Kg</b>



## 4.2 Inspection documents

Following inspection documents will be supplied upon customer request according to EN 10204:

- Test report 2.2
- Inspection certificate 3.1 (extra costs are charged / scope of testing to be defined)

### Test report 2.2

PLANSEE confirms that the delivered product meets the specification and gives details of the material properties according to ongoing batch control and production surveillance, not directly related to the particular production batch delivered.

### Inspection certificate 3.1

PLANSEE confirms that the delivered product meets the specification and gives details of the material, directly related to particular production batch delivered. The scope of testing has to be defined / agreed with the customer during the inquiry or ordering process.

#### Changes to last version:

Revision	Replacing	Prepared	Released	Reason for revision	Date
00	Q-D 04-27e Rev. 0	T. Nuscheler	F. Goral	New Layout	18.01.2018
01	00	A.Nießner	F.Goral	Removed Ni, Fe and Mo	03.05.2021



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