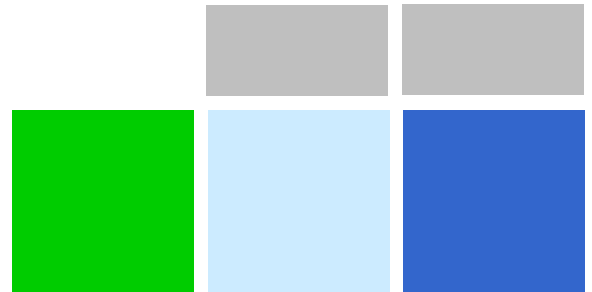


Lenzing LENOFIL[®] PVDF Multifilament



Lenzing plastics is known for its Lenzing PROFILEN[®] PTFE products. PTFE is in many concerns the best polymer available on the market. Nevertheless there are some characteristics that disqualifies it for some applications. Therefore Lenzing plastics did intensive development and invested in a high end multifilament extrusion line capable to produce a broad range of excellent fluorothermoplastic filaments.

The first product we now proudly present for commercial use is
Lenzing LENOFIL[®] PVDF (Polyvinylidenfluoride) Multifilament!

PVDF shows **outstanding performances in the chemical field** without the disadvantages in regards of physical properties and the difficulties in production of other Fluor polymers.

Please find enclosed detailed information to the properties and strength of this material also compared to PTFE and other fibers available on the market.



How could you benefit using PVDF Multifilament? - main characteristics

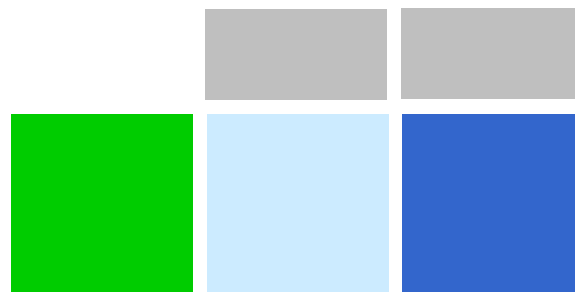
- **Low density** compared to other Fluor polymers (1,78 g/cm³)
- **High chemical resistance** to most mineral and organic acids, oxidizing environments, aliphatic and aromatic hydrocarbons, alcohols and halogenated solvents, halogens (especially bromine) and to weak bases.
- Continuous working temperature from -40 to **150°C**
- **Excellent mechanical strength** compared to other Fluor polymers
- Low **moisture** absorption (<0,04%)
- Good **hydrolysis** resistance
- Excellent resistance against beta-, gamma-, and UV radiation

What distinguishes Lenzing Lenofil[®] PVDF Multifilament from others available on the market ?

- Available in Teters from 100 up to 2500 dtex and more
- Constant titer, minimal deviations
- Available in different colors
- Different number of filaments possible (standard 96)
- Spin finish adaptable to customers requirements



Lenzing LENOFIL[®] PVDF Multifilament



Property	unit	PVDF	PTFE	PFA ₁	ETFE ₂	PEEK ₃	FEP ₄
Continuous temperature	°C /°F	150 /284	288 /550	260 /500	150/ 302	250 /482	200/392
Chemical resistance	-	Good	Excellent	Excellent	Excellent	Excellent	Excellent
Specific gravity	g/ cm ³	1,78	1,5 - 2,1	2,15	1,73	1,32	2,15
Water absorption	%	< 0,04	< 0,01	< 0,03	< 0,03	< 0,5	< 0,01
Weather resistance	-	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Limiting Oxygen Index (LOI)	%	44	> 95	> 95	> 30	35	> 95
Melting point	°C /°F	160/ 320	327/ 620	305/ 581	260/ 500	334/ 633	270/518
Friction coefficient		0,2-0,4	0,03	0,2-0,3	0,3-0,5	0,3-0,5	0,3-0,35

₁ Perfluoralkoxylalkan; ₂ Ethylen-Tetrafluorethylen; ₃ Polyetheretherketon; ₄ Perfluorethylenpropylen

Beside PVDF also other Fluor polymers were tested on our new line, as for example PFA & ETFE. If you have special interest in this field please contact us in order to work on future developments!

Typical types	Titer	Filaments	Breaking strength	Tenacity	Elongation
	dtex		N	cN /tex	%
Lenzing LENOFIL [®] PVDF 2380	2380	96	23	10	39
Lenzing LENOFIL [®] PVDF 1100	1100	96	15	14,6	78
Lenzing LENOFIL [®] PVDF 400	400	48	9,8	24	30
Lenzing LENOFIL [®] PVDF 220	220	48	6,8	30	23

For further information please contact:

Lenzing Plastics GmbH

Volker Biladt
Sales Manager Filtration

phone +43 7672 701-3974
mobile +43 664 8281404

E-Mail v.biladt@lenzing.com

