

# HEROCOMP PTFE COMPOUNDS CARBON FIBERS SERIES PTFE+CF



**Herocomp CF** is a **Polytetrafluoroethylene (PTFE)** compound series filled with **Carbon Fibers (CF)**. CF is added into high quality Virgin PTFE in different percentages and types in order to fulfill specific customer requirements. The family of **CF Compounds** is particularly suitable for **medium to high loading** and **heavy-duty applications**. Carbon Fibers are typically available from **two different precursors: PAN and PITCH**. Each one of these two types are chosen depending on the application requirements. By identical percentages in the PTFE compound, **PAN CF** are mostly chosen for dry-running, high-speed and stiffness. Alternatively **PITCH CF** are chosen for higher elongation and technical components in lubricated conditions.

## MAIN BENEFITS

- ✓ Excellent resistance to abrasion
- ✓ Very good chemical resistance and improved resistance to hydrofluoric acid
- ✓ Very good wear resistance even in water application
- ✓ Higher thermal conductivity and lower thermal expansion than Glass Fibres
- ✓ Increased flex and compressive modulus

## PROCESSING

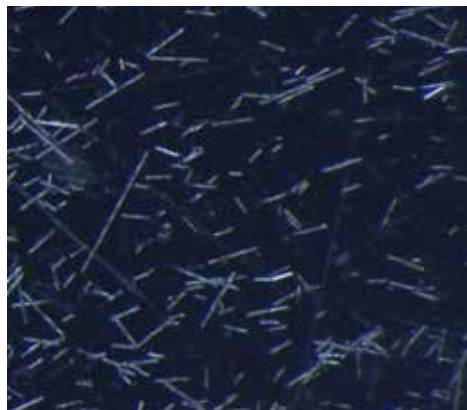
- ✓ Compression moulding
- ✓ Automatic moulding
- ✓ Isostatic moulding
- ✓ RAM extrusion

## APPLICATIONS

- ✓ Bearings
- ✓ Sealing elements
- ✓ Piston rings
- ✓ Ball-valve seats
- ✓ Thrust washers

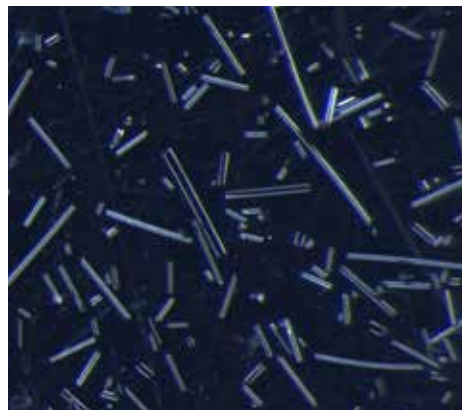
### SHORT FIBERS (PAN)

MAG.64X



### LONG FIBERS (PITCH)

MAG.64X



**Herocomp CF Series can be formulated also with Virgin Modified PTFE polymer base.**

For more information, visit our website: [www.heroflon.com](http://www.heroflon.com)

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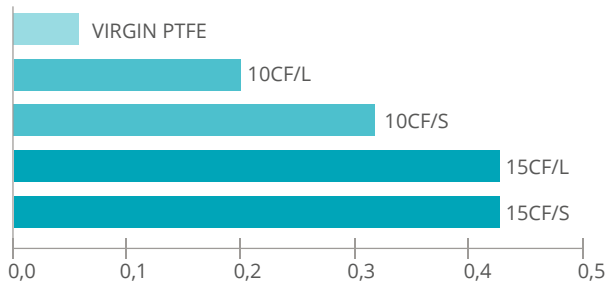
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PROPERTY	TEST METHOD	UNIT	10CF/L (PITCH)	10CF/S (PAN)	15CF/L (PITCH)	15CF/S (PAN)
<b>NFF Non Free-Flowing Grade for Compression Molding</b>						
Bulk density	ASTM D4894	g/l	400	400	400	400
Specific gravity	ASTM D4894	-	2,10 +/- 0,03	2,10 +/- 0,03	2,06 +/- 0,05	2,06 +/- 0,05
Tensile strength	ASTM D4894	MPa	23	24	21	22
Elongation	ASTM D4894	%	280	270	260	250
Hardness	NEEDLE	Shore D	60 +/- 3	60 +/- 3	61 +/- 3	61 +/- 3
Diametric shrinkage	INTERNAL	%	2,2 +/- 0,4	2,2 +/- 0,4	2,0 +/- 0,5	2,0 +/- 0,5
<b>FF Free-Flowing Grade for Compression Molding</b>						
Bulk density	ASTM D4894	g/l	620	620	650	650
Specific gravity	ASTM D4894	-	2,10 +/- 0,03	2,10 +/- 0,03	2,06 +/- 0,05	2,06 +/- 0,05
Tensile strength	ASTM D4894	MPa	21	22	19	20
Elongation	ASTM D4894	%	260	250	240	230
Hardness	NEEDLE	Shore D	60 +/- 3	60 +/- 3	61 +/- 3	61 +/- 3
Diametric shrinkage	INTERNAL	%	2,2 +/- 0,4	2,2 +/- 0,4	2,0 +/- 0,5	2,0 +/- 0,5
<b>FF/HD Free-Flowing Grade for Compression and Automatic Molding</b>						
Bulk density	ASTM D4894	g/l	750 +/- 50	750 +/- 50	750	750
Specific gravity	ASTM D4894	-	2,10 +/- 0,03	2,10 +/- 0,03	2,06 +/- 0,05	2,06 +/- 0,05
Tensile strength	ASTM D4894	MPa	16	18	14	14
Elongation	ASTM D4894	%	200	180	180	160
Hardness	NEEDLE	Shore D	60 +/- 3	60 +/- 3	61 +/- 3	61 +/- 3
Diametric shrinkage	INTERNAL	%	2,2 +/- 0,4	2,2 +/- 0,4	2,0 +/- 0,5	2,0 +/- 0,5

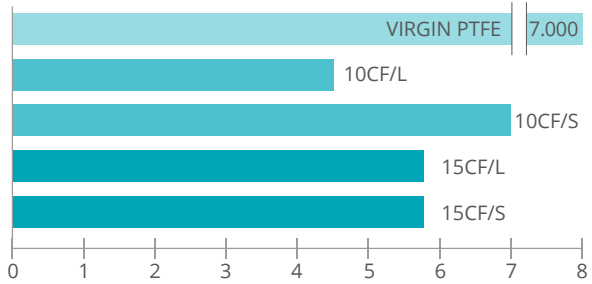
These are Typical Values not suitable for specification purposes

### Coefficient of Friction



### Factor K (Pin on Ring: Speed 4 m/s Load 3,5 bar)

$\times 10^{-7} \text{mm}^3/\text{N.m}$



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