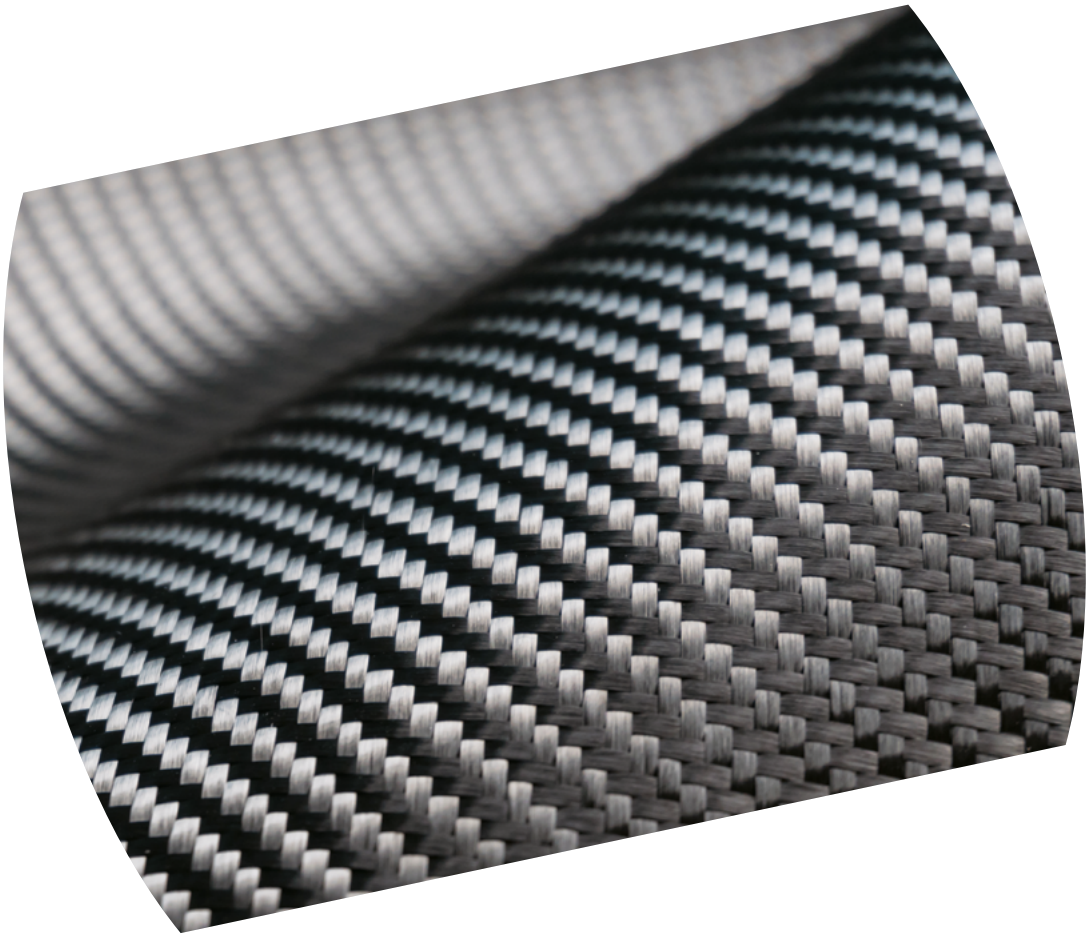


M⁘COM

Wic – Carbon fiber compounds
Light, strong, sustainable

Wic-products are high-performance plastics based on carbon fibers with a very attractive cost/benefit ratio.

Wic-compounds, manufactured on the basis of recycled carbon fiber fabric residues, are characterized by excellent mechanical properties combined with low density, i.e. low weight. Its specific strength qualifies the material ideally for lightweight construction applications. This helps, for example, to reduce the CO_2 emissions of vehicles by saving weight emissions or to make mobile applications lighter and therefore more comfortable.

The standard products today include Wic-compounds based on PA66, PA6 and PP. Application-specific solutions based on other filler combinations and customizing can be developed. In addition to the special properties and the lightweight construction potential, Wic-products also offer interesting savings compared to highly filled glass fiber compounds when the volume/part price is taken as a basis.

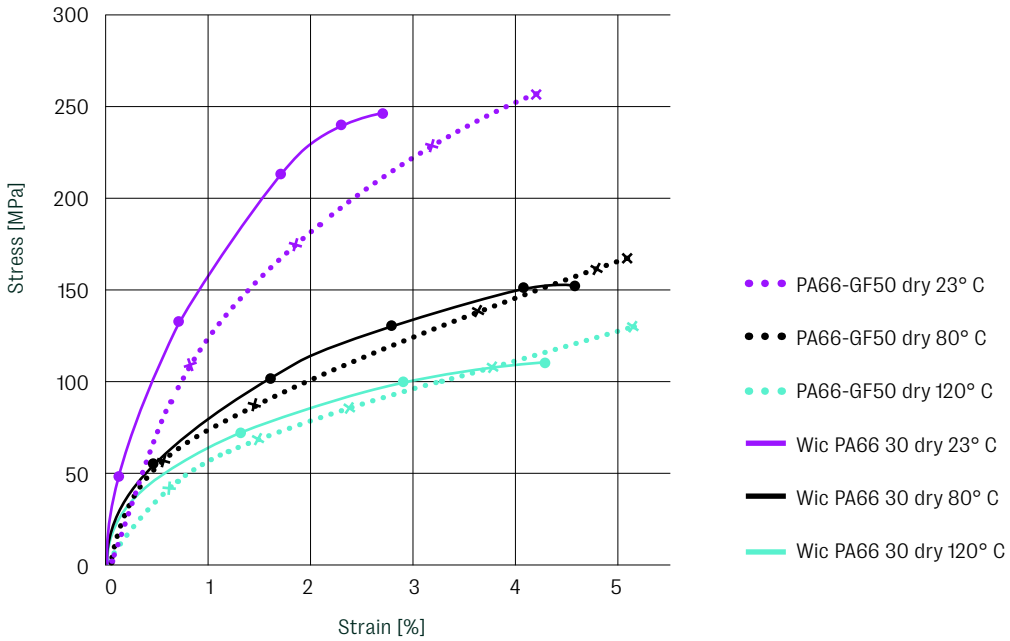
Wic – Carbon fiber compounds: the advantages at a glance

- Low density → Lightweight construction
- High strength stiffness (metal replacement potential)
- Improved ecological balance
- High dimensional stability
- Design freedom

Material Name	CO_2 -Footprint (GWP100) [kg CO_2 eq.] Sphera LCA for experts (DIN EN ISO 14040/14044)	Carbon Fiber Content	Density [g/cm³] ISO 1183	Tensile Modulus (dry) [MPa] ISO 527-1/-2	Tensile Stress at Yield (dry) [MPa] ISO 527-1/-2	Impact Strength (dry) 23° C [kJ/m²] ISO 179/1eU	Notched Impact Strength (dry) 23° C [kJ/m²] ISO 179/1eA
Wic PA6 10	6.08	10	1.17	9,000	135	40	4
Wic PA6 20	5.72	20	1.23	15,500	180	58	7
Wic PA6 30	5.23	30	1.27	22,000	200	55	6
Wic PA6 40	4.79	40	1.34	29,000	210	50	9
Wic PA66 10	6.04	10	1.18	9,000	145	30	3.5
Wic PA66 20	5.60	20	1.23	15,900	200	50	6
Wic PA66 30	5.06	30	1.27	22,000	220	55	7
Wic PA66 40	4.54	40	1.33	28,500	220	50	7
Wic PP 10	1.50	10	0.97	5,500	60	30	6
Wic PP 20	1.36	20	1.01	9,500	78	45	9
Wic PP 30	1.26	30	1.07	12,500	85	47	8,5
Wic PP 40	1.17	40	1.13	17,000	93	40	9

Further products and information on request.

Stress-Strain Curves PA66-GF50 vs. Wic PA66 30



MOCOM data sheets

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