

BEST
QUALITY-PRICE-
RATIO

REINFORCING YOUR TOWPREG APPLICATIONS

Kümpers-Towpregs based on Carbon, Glass, Aramid and other fibers are developed for all kind of winding processes and braidings. Main applications are H2 pressure vessels, sleeves for E-Motors, automotive parts and many other **high performance structures**.

Due to the very even and deep impregnation with various tack settings, our **Towpregs** offer enormous advantages.

We convince you and fulfill your specific requirements.



Pressure Vessels



Towpregs (Carbon, Glass, Aramid)



Rotor Sleeves

ADVANTAGES AND BENEFITS FOR YOUR WINDING COMPOSITE PART

TOWPREG TYPES

RESIN SYSTEMS

- » HIGHER PRODUCTION EFFICIENCY UP TO 40%
- » BETTER MECHANICAL PERFORMANCE
- » RIGOROUS QUALITY CONTROL
- » LONG SHELF LIFE
- » BETTER WORK ENVIRONMENT
- » KEEPING OPERATOR HEALTH
- » MATERIAL SAVING UP TO 15%
- » CONTROLLED RESIN CONTENT
- » LOW FIBER AND RESIN TOLERANCES
- » MANY SPOOL SIZES (5-16 KG)
- » HIGH SPEED WINDING PROCESSES
- » BEST QUALITY PRICE RATIO

We can offer you a wide range of high quality and best pricing Towpreg-Types, based on different fibers and resin systems (see overview below).

CARBON FIBER TYPE	TOW WIDTH	FILAMENT COUNT	TENSILE STRENGTH	TENSILE MODULUS	RESIN
HS Fiber (ISO)	5,0 mm - 9,5 mm	12K - 24K - 50K	< 5520 MPa	< 250 GPa	EPOXY thermoset
IM Fiber (ISO)	3,5 mm - 8,0 mm	12K - 24K	< 6000 MPa	< 294 GPa	EPOXY thermoset
HM Fiber (ISO)	3,5 mm - 8,0 mm	12K	< 4410 MPa	< 375 GPa	EPOXY thermoset

Basalt, Glass, Aramid Fibers available upon request

TOWPREG EPOXY MATRIX					
MATRIX	TG DMA ONSET TAN (°C)	CURE RANGE (°C)	SHELF LIFE @ -18°	SHELF LIFE @ 21°	APPLICATIONS
KRS 024	120 - 135	120 - 150	> 12 months	30 - 60 days	pressure vessels, all kind of tanks, composite structures, automotive parts
KRS010	140 - 150	90 - 130	> 12 months	30 - 60 days	pressure vessels, bandages / sleeves, composite structures,
KRS 022 high TG	180 - 190	120 - 180	> 12 months	15 days	parts with thin laminate structures, automotive parts
KRS 015 snap cure	150 - 160	100 - 170	> 12 months	15 days	processes with short cycle times

» KONTAKT

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