TEKNOFIBRA®

Teknofibra® is a very light weight material, heat reflecting, heat absorbing, sound absorbing, adhesive. This unique material protects parts mounted in close proximity to hight temperature that would otherwise be damaged without proper protection. **Teknofibra®** is produced in standard size, or realized to customers drawing. **Teknofibra®** has been created and underwent a performance tests at our engineering labs. Our company specialized in the field of acoustics and energetics engineering, industrial, environmental and building. Our competence and the experience matured on racing, have ensured to **Teknofibra®** thermal and acoustics performance that until today any other insulator is not able to give.

Teknofibra® è un materiale estremamente leggero, riflettente, insonorizzante, atermico, adesivo. Questo materiale unico nel suo genere, protegge organi e parti meccaniche montate in prossimità di alte fonti di calore proteggendole dagli sbalzi di temperatura. Teknofibra® è stato studiato in laboratorio e realizzato dopo accurati test ingegneristici. Teknofibra® è specializzata in campo di ingegneria acustica, energetica, industriale, edilizia, ambientale. Gran parte dell'esperienza è stata maturata nelle competizioni auto e motociclistiche, assicurando in Teknofibra® un altissimo grado di protezione termica e acustica che nessun altro prodotto isolante è in grado di dare.

The short fibers of carbon that have been stabilized at the origin, are widely used in the field of aeronautics.

These fibers are particularly used for all of the padding for the seats, moreover such as insulation and sound absorbing for the following unique characteristics:

- ***Totally non-toxic and physiologically safe***
- ***Does not burn***
- ***It does not produces emissions toxic or harmful in case of fire***
- ***Absorbs a high amount of moisture***

Teknofibra® is provided with a coating that is heat-reflecting/low-emissivity on one side and with the application on the opposite side of a special adhesive resistant up to 250° C.

For the realization of **Teknofibra®**, the short fibers of carbon undergo an innovative process, which enables this fundamental improvements:

- ***A significant reduction of the apparent density***
- ***The reduction of the thermal conductivity from 0.4 to only 0.029***
- ***A substantial increase in acoustic performance***

Le fibre corte di carbonio stabilizzate, vengono largamente utilizzate in campo aeronautico ed in particolare per realizzare tutte le imbottiture, per i sedili, come coibente e fonoassorbente per le seguenti caratteristiche singolari:

- ***Totale atossicità e sicurezza fisiologica.***
- ***Non brucia***
- ***Non produce emissioni tossiche o dannose in caso d'incendio***
- ***Assorbe una elevata quantità d'umidità***

Teknofibra® *è fornito con un rivestimento termoriflettente/basso emissivo da un lato e con l'applicazione, sul lato opposto, di un particolare adesivo resistente sino a 250° C.*

Per la realizzazione di ***Teknofibra®****, le fibre corte di carbonio subiscono un processo innovativo, che consente questi fondamentali miglioramenti:*

- ***Una importante riduzione della densità apparente.***
- ***L'abbattimento della conducibilità termica da 0,4 a solo 0,029 W/mK***
- ***Un incremento sostanziale delle prestazioni acustiche***

The short fibers of carbon, thanks to **Teknofibra®**, now have a new scoreboard:

*Le fibre corte in carbonio, grazie a **Teknofibra®**, hanno oggi una nuova pagella:*

1.	**THERMAL CONDUCTIVITY** *Conducibilità termica*	λ	0,029*	W/mK	* to 40° C, 0,022 to 0° C and 0,045 to 350° C. to pressure of 1013 mb. Are available the curves that relate the thermal conductivity at the pressure variation and moisture.
2.	**LOW EMISSIVITY** *Bassa emissività*	ε	0,045	-	Value mediated between the minimum of 0.035 and a maximum of 0.055 for a surface that has long remained exposed to high temperatures.
3.	**ELECTRICAL RESISTANCE** *Resistenza elettrica*	Ω	10^8	ohm	Unlike the carbon fibers that are excellent conductors, Teknofibra® is completely insulating.
4.	**SOUND ABSORPTION** *Assorbimento acustico*	α	0,9	-	Apparent sound absorption according to ISO 354 at a frequency of 1 KHz relative to a mat of 25 mm without heat-reflecting film. The performance depends essentially on the frequency and application. We are at your complete disposal for detailed technical information.
5.	**DENSITY** *Densità*	ρ	73	Kg/m^3	Average bulk density of the fabric only. The adhesive and the film reflective determine an increase of the density of 370 g/m2.
6.	**CONSTANT VOLUME WITH THE VARIATION OF PRESSURE** *Volume costante al variare della pressione*	ΔV	0	-	Teknofibra® while having the performance of the best materials with closed cells, Teknofibra® is with cells open and this makes it dimensionally and structurally insensitive to pressure variations.
7.	**IT DOES NOT RELEASE DUST** *Non rilascia polveri*	-	-	-	Does not contain dust therefore there is no emission of dust with the rapid decrease of the pressure.
8.	**HIGH MOISTURE ABSORPTION** *Elevato assorbimento dell'umidità*	Δρ	>10	Kg/m^3	The capacity of the fibers to absorb a large quantity of water, allow to avoid the presence in the liquid state under conditions of condensation temporary or cyclic and preserve the thermal and acoustic characteristics.
9.	**DOES NOT BURN** *Non brucia*	LOI	50	-	Teknofibra® it needs in order to be able to burn, the presence of 50% of oxygen in the air of combustion that it contains only 21%.
10.	**100% NON-TOXIC** *100% atossico*	-	-	-	Teknofibra® guarantees maximum safety physiological.
11.	**IT IS STABLE AT HIGH TEMPERATURES** *Stabile alle alte temperature*	t	350	°C	Teknofibra is indefinitely stable at the temperature of 350° C and withstands without serious structural alterations temperature peaks up to over 600° C.

PAPRICA adv

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