



FIBERTEK A SC 75/35

Steel fibers with improved adhesion For fiber-reinforced concretes
Ideal for projected concretes (shot concrete / spritz beton)



DESCRIPTION

FIBERTEK A SC fibers are made of steel with particular hooked shaping in order to achieve the best anchorage in the cement matrix of concrete and mortars and therefore the best reinforcement. Due to their size, they are particularly suitable for projected concretes (Shot Concrete / Spritz Beton). The characteristics of the steel wire from which the FIBERTEK A SC fibers are obtained meet the reference standards relating to the type of use.

The product complies with EN 14889-1, EN 14845-1:2007, UNI 11037 and UNI 11039-1.

FEATURES

FIBERTEK A SC, made of high-strength steel, allow to obtain concretes and mortars with high resistance to:

- Shock and vibration
- Concentrate loads
- Fatigue

The uniform distribution of fibertek A SC fibers in the dough also makes it possible to replace the secondary reinforcement and contain the propagation of any cracks.

FIBERTEK A fibers are available (on request) in different diameters and lengths depending on the needs of use.

FIELDS OF APPLICATION

FIBERTEK A SC fibers are used to make a diffuse reinforcement reinforcement in concrete structures subject to particularly high stresses, shocks, heavy traffic, vibrations, etc.

They are used as the main and only reinforcement of:

- industrial concrete floors
- Shotcrete: gunite (spritz beton) for tunnels, walls, embankments, piazzali ed aree di parcheggio
- curbs of road joints
- structural restorations
- metal pipe coating
- precast elements
- hydraulic overflows and spillways
- bunkers, vaults, safes
- foundation slabs
- Shear reinforcement in prestressed elements.

FIBERTEK A SC fibers improve the mechanical properties of concrete and materials, such as ductility, strength, energy absorption, durability and hardness.

This fiber helps above all to control the plastic shrinkage and cracking of concrete and helps to reduce or eliminate the need for conventional reinforcement.



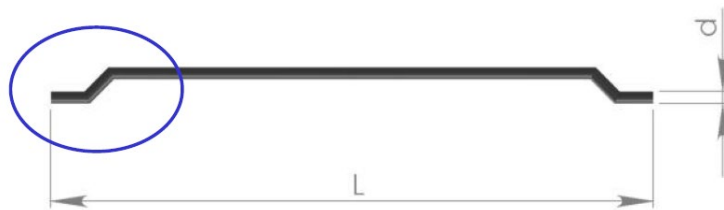
PERFORMANCE

ZS/N 0.75 x 35		Class	C20/25		C25/30		C30/37		C32/40		C35/45		C40/50		C45/55	
Dosage [kg/m ³]	Re,3 %	F _{ctm,fi}	3.5		4.1		4.6		4.8		5.1		5.6		6.1	
		R _{10,30} %	f _{e,3} [Mpa]	f _{10,30} [Mpa]	f _{e,3} [Mpa]	f _{10,30} [Mpa]	f _{e,3} [Mpa]	f _{10,30} [Mpa]	f _{e,3} [Mpa]	f _{10,30} [Mpa]	f _{e,3} [Mpa]	f _{10,30} [Mpa]	f _{e,3} [Mpa]	f _{10,30} [Mpa]	f _{e,3} [Mpa]	f _{10,30} [Mpa]
15																
20	37	39	1.3	1.4	1.5	1.6	1.7	1.8	1.8	1.9	1.9	2.0	2.1	2.2	2.3	2.4
25	44	47	1.6	1.7	1.8	1.9	2.1	2.2	2.1	2.3	2.3	2.4	2.5	2.6	2.7	2.8
30	52	54	1.8	1.9	2.1	2.2	2.4	2.5	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.3
35	57	60	2.0	2.1	2.4	2.5	2.7	2.8	2.8	2.9	3.0	3.1	3.2	3.4	3.5	3.7
40	63	66	2.2	2.3	2.6	2.7	2.9	3.0	3.0	3.2	3.2	3.4	3.5	3.7	3.8	4.0
45	69	72	2.4	2.5	2.8	3.0	3.2	3.3	3.3	3.5	3.5	3.7	3.9	4.0	4.2	4.4
50	73	77	2.6	2.7	3.0	3.1	3.4	3.5	3.6	3.7	3.8	3.9	4.1	4.3	4.5	4.7

For concrete compressive forces not exceeding $f_c' = 45$ MPa (C45 / 55 concrete class)

- $f_{ctm,fi}$ medium bending strength of normal concrete according to EN 1992-1-1
- $R_{e,3}$ - equivalent bending ratio with total deflection from 3 mm to JSCE
- $f_{e,3}$ - flexural strength equivalent to JSCE, [$f_{e,3} = f_{ctm,fi} \cdot R_{e,3}/100$]
- $R_{10,30}$ - toughness ratio of I10 and I30 toughness indices with ASTM C1018, [$R_{10,30} = 100 \cdot (I_{30}-I_{10}) / (I_{30}-I_{10}) EP$]
- $f_{10,30}$ - average bending stresses between 5,5δ and 15,5δ of deviation to ASTM C1018, [$f_{10,30} = f_{ctm,fi} \cdot R_{10,30} / 100$]

TECHNICAL FEATURES



Length (mm)	(L)	35 ± 10%
Wire diameter (mm)	(de)	0,75 ± 10%
Aspect ratio	(L/de)	47
Format		hooked
Cross section		circular
Tensile rupture tension (N/mm ²)		1100-2700

DOSAGE

The fibres must be introduced into the mixer at the same time as the introduction of the aggregates. FIBERTEK A SC are dosed at the rate of 20/40 kg per cubic meter of concrete, depending on the project and the requests.

PACKAGING

20kg bags

STORAGE

Fibers will keep for 24 months if stored in a dry environment out of the rain.

LEGAL NOTICES

The information contained in this technical data sheet, while representing the most advanced stage of knowledge, does not exempt the user from carrying out accurate preliminary tests in their own conditions of use and operation. We therefore decline any responsibility for improper use of the product.