

STEEL FIBERS

• PETROCHEMICAL
 • SIDERURGY
 • CEMENT INDUSTRY
 • CIVIL ARCHITETURE
 • HIDRO-ELETRIC



Chemical composition and fiber properties

Alloy Composition	CHEMICAL COMPOSITION (%)									FIBER PROPERTIES						
	C	Mn	Si	P	S	Cr	Ni	Mo	Others	Melting Range (°C)	Thermal Conductivity @ 540°C (W/m² k)	Stretch Modulus @ 870°C (GPa)	Tensile Strength @ 870°C (MPa)	Thermal Expansion Coefficient @ 540°C (um/m°C)	Oxidation Critical Temperature (°C)	Usual Sizes (Mm)
AISI 304	0.08	2.00	1.00	0.045	0.03	18.0 20.0	8.0 10.50	-	-	1400 - 1450	20.9	193	120	18.4	1030	25.4 x 0.51
AISI 310	0.25	2.00	1.50	0.045	0.03	24.0 26.0	19.0 22.0	-	-	1400 - 1450	20.4	200	149	16.9	1232	25.4 x 0.51
AISI 330	0.08	2.00	0.75 1.50	0.04	0.03	17.0 20.0	34.0 37.0	-	-	1400 - 1425	21.5	196	193	16.7	1232	25.4 x 0.51
AISI 430	0.12	1.00	1.00	0.04	0.03	16.0 18.0	-	-	-	1425 - 1510	26.3	200	47	11.4	815	25.4 x 0.51
AISI 446	0.20	1.50	1.00	0.04	0.03	23.0 27.0	-	-	0.25N	1425 - 1510	24.4	200	53	11.2	1204	25.4 x 0.51
ASTMA 297 GR HT	0.35 0.75	2.00	2.50	0.04	0.04	15.0 19.0	33.0 37.0	0.50	-	1480 - 1530	26.5	83	58	11.4	1093	25.4 x 0.51

Characteristics

- Increase the resistance of the refractories, against the thermal cycle effects, high thermal gradient, thermomechanic shocks etc.
- In addition increases the resistance against crack propagation, the fibers support refractories cohesion even after the cracks appearance.

Applications

- Reinforcement of refractory concrete in furnaces for industries: petrochemical, petroleum refineries, metallurgical, ceramics, mining.

Some customers

Alcoa Alumínio, Bechtel do Brasil, Braskem, Confab, Copesul, Jaraguá, Petrobras, Profertil, Rip Serviços, Technip Engenharia...