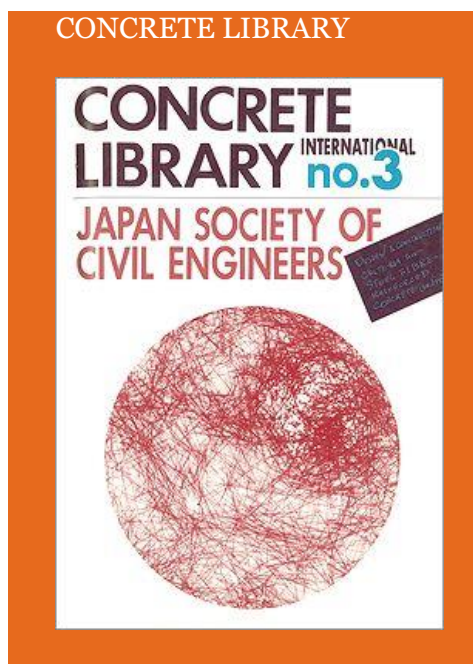


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ENSAIOS E NORMAS INTERNACIONAIS EM QUE AS FIBRAS ESTRUTURAIS BARCHIP FORAM APROVADAS

Na EPC do Brasil estamos sempre combinando os últimos avanços tecnológicos de materiais e técnicas de produção para entregar fibras estruturais com desempenho superior nas diversas aplicações da construção civil. Estamos constantemente envolvidos com centros de pesquisas nos diversos laboratórios mundiais para comprovar a qualidade superior do nosso produto. Como resultado, podemos seguramente afirmar que nossas fibras estruturais da linha BarChip foram aprovadas e certificadas nas principais Normas e Recomendações Internacionais conforme apresentado na tabela ao lado.

REGIÃO	INSTITUIÇÃO	CÓDIGO/ NORMA
Internatio nal	International Organisation for Standards	ISO 9001 Quality Management Systems
	International Organisation for Standards	ISO 14001 Environmental System
	International Tunnelling Association	Independent testing by WG12 sprayed concrete committee 2007
	ICC Evaluation Service	Acceptance Criteria For Concrete With Synthetic Fibres 2003
Brasil	ANAPRE	ANAPRE CF 001/2011 MACROFIBRAS SINTÉTICAS PARA PISOS INDUSTRIAIS- ESPECIFICAÇÕES
Europe	Eurocode	EN 14889-2:206 Fibres for Concrete Part 2 Polymer fibres – Definitions specification and conformity
	Eurocode	EN 14889-2:206
	EFNARC	EN14887-1 Square panel test
	CE Certificate	Polymer fibres for structural use in concrete, mortar and grout Polymer type: Polypropylene Class II
UK	Concrete Society	TR65 Guidance on the use of macro synthetic fibre reinforced concrete

	British Tunnelling Society	BTS Specification for Tunnelling Third Edition 2010
Norway	Norsk Betongforening	Publication No 7 Sprayed Concrete for rock support Technical specification Guidelines and Test Methods 2011
	Norwegian Tunnelling Society	Publication No 17. Underground Openings - Operations, Maintenance and Repair 2008
Poland	ITB Polish Technical Institute	Certification for use in structural applications
USA	ASTM	ASTM D7508/D7508M – 10 Standard Specification for Polyolefin Chopped Strands for Use in Concrete
	ASTM	ASTM C1116 Standard Specification for Fiber reinforced Shotcrete and Concrete
	ASTM	ASTM C155-12a Standard Test Method for Flexural Toughness of Fiber Reinforced Concrete (Using Centrally Loaded Round Panel)
	ASTM	ASTM C1609 Standard Test Method for Flexural Performance of Fiber-Reinforced Concrete
	ASTM	ASTM C1550 Standard Test Method for Flexural Toughness of Fiber Reinforced Concrete (Using Centrally Loaded Round Panel)
	American Concrete Institute	ACI 506.5R-09 Guide for Specifying underground shotcrete
	Maine Department of Transportation	Qualified Product Concrete and Bridge Items
	Florida Department of Health	Qualified Product Sewage Treatment Concrete
	National Concrete Burial Vault Association	Qualified Product for Precast Burial Elements
Australia	Institute of Public Works Engineers Australia	Standard Drawings for Paving Works
	QLD Main Roads	Main Roads Project Specific Technical Standard Shotcrete Specification
	QLD Rail	Stone and Concrete Slope Protection Standard Specification
	Brisbane City Council	Standard Drawings for Paving Works
	Newcastle City Council	Standard Drawings for Paving Works
Saudi Arabia	SGS	Certificate of Conformity for commodities and products to be exported to the Kingdom of Saudi Arabia
Nigeria	Standards Organisation of Nigeria	Certificate of Conformity
Japão	JSCE	JSCE-SF4 METHOD OF TESTS FOR FLEXURAL STRENGTH AND FLEXURAL TOUGHNESS OF STEEL FIBER REINFORCED CONCRETE