better together



## **DATA SHEET**

# **Synmix**®



#### What is Synmix®?

Synmix® macro synthetic fibres, provide post crack load carrying capacity at larger crack widths making them suitable for shotcrete reinforcement in mining applications

#### **MIXING** RECOMMENDATIONS

#### 1 General

- 1.1 A continuous grading is preferred.
- 1.2 Mix until all fibres are homogeneously spread through the mix.
- 1.3 If special cements or admixtures are used a preliminary test is recommended.

#### Fibre Addition

#### 2 In Batching central plant mixer

- 2.1 Never add fibres as the first component of the mix.
- 2.2 Fibres should be introduced either with the sand and aggregates or mixed into freshly mixed concrete.
- 2.3 After Fibre addition continuously mix for a minimum 4 – 5 minutes.

#### Truck mixer

- 3.1 Run mixer at drum speed: 12 18 rpm.
- 3.2 Never add fibres as the first component of the mix
- 3.3 Fibres should be introduced either with the sand and aggregates or mixed into freshly mixed concrete.
- 3.4 After Fibre addition continuously mix for a minimum 4 - 5 minutes.

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### All details describe our products in general form only. For detailed information, product specifications available on request.

#### GEOMETRY AND PERFORMANCE





39000 Fibres/kg

MATERIAL PROPERTIES

Tensile strength: Rm min: 250 N/mm<sup>2</sup>

Young's Modulus (E): ± 3000 N/mm<sup>2</sup>

Density: 905 kg/m<sup>3</sup>









112 boxes (5 kg) 560 kg

**KEEP DRY** Degradable Packaging (NOW AVAILABLE)

**NO STACKING** 

### **Toughness Performance:**

The toughness performance of structural synthetic fibres when measured in Round Determinate Panels (RDP's) is significantly affected by the mix design, spraying technique, panel preparation and fibre distribution. For this reason it is only possible to give indicative results based on actual test results(available on request) and summarized as follows-

RDP Test Results (5 Panels per test result)					
Nominal	Value	Synmix 65 @ 5kg/m <sup>3</sup>		Synmix 65 @ 7kg/m <sup>3</sup>	
Shotcrete		Peak Load	Energy	Peak	Energy
Strength		(kN)	absorption	Load (kN)	absorption to
			to 40mm		40mm
32MPa	Mean	23.84	435	24.72	525
	Std.	3.98	52	1.80	45
	Dev.				
	Cof V	17%	12%	7%	9%
40MPa	Mean	27.72	425	26.74	568
	Std.	4.72	38	1.97	39
	Dev.				
	Cof V	17%	9%	7%	7%