

# Declaration of Performance

DOP/BP/SC-Beam, Columns and Frame Elements



Forterra Building Products Limited  
Trading as Bison Precast  
5 Grange Park Court, Roman Way  
Northampton, NN4 5EA

BS EN 13225:2013

21

PRECAST PRODUCTS

Reinforced precast product –Columns, Beams and Frame Elements

Essential Characteristics	Performance
Concrete Compressive Strength	C40/50(N/mm <sup>2</sup> )
Ultimate Tensile Strength	650 (N/mm <sup>2</sup> )
Grade B500A: Ultimate tensile strength	525 (N/mm <sup>2</sup> )
Grade B500B: Ultimate tensile strength	540 (N/mm <sup>2</sup> )
Grade B500C: Ultimate tensile strength	575 (N/mm <sup>2</sup> ) minimum
Grade B500C: Ultimate tensile strength	675 (N/mm <sup>2</sup> ) maximum
Tensile yield strength(All grades)	500 (N/mm <sup>2</sup> )
Wire / StrandUltimate Tensile Strength	1770 (N/mm <sup>2</sup> )
Tensile 0.1% Proof stress	1556 (N/mm <sup>2</sup> ) Wire
Tensile 0.1% Proof stress	1551 (N/mm <sup>2</sup> ) Strand
For geometrical data, detailing, mechanical strength, acoustic insulation parameters and durability see design Specification	Design Drawings and Specification Related to Client Requirements
Dangerous Substances	NPD

See Also Declaration of Performance DOP/BP/SC- Columns, Beams and Frame Elements

The performance of the product identified above is in conformity with the declared values, when installed in accordance with the manufacturer's instructions and general purpose or lightweight mortars.

- Unique identification code of the product type.

Type	Description
Beam	Element, usually horizontal, for carrying loads primarily by flexure
Column	Vertical bearing element subject mainly to compression
Frame	Structure composed of two or more linear elements together to provide structural stability

- Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article 11(4): Precast Concrete product – Linear Structural Elements
- Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the manufacturer: Construction of the buildings & other civil engineering works except bridges.
- Name, registered trade name or registered trade mark and contact address of the manufacturer as required under Article 11(5):

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- System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V:

**System 2+**  
**1333-CPR--00198**

- Declared Performance

Essential Characteristics	Performance	Harmonised Technical Specification	
Concrete Compressive Strength	C40/50 (N/mm <sup>2</sup> )	BS EN 13225:2013	
Ultimate Tensile Strength	650 (N/mm <sup>2</sup> )		
Grade B500A: Ultimate tensile strength	525 (N/mm <sup>2</sup> )		
Grade B500B: Ultimate tensile strength	540 (N/mm <sup>2</sup> )		
Grade B500C: Ultimate tensile strength	575 (N/mm <sup>2</sup> ) min. 675 (N/mm <sup>2</sup> ) max		
Tensile yield strength(All grades)	500 (N/mm <sup>2</sup> )		
Wire / StrandUltimate Tensile Strength	1770 (N/mm <sup>2</sup> )		
Tensile 0.1% Proof stress	1556 (N/mm <sup>2</sup> ) Wire		
Tensile 0.1% Proof stress	1551 (N/mm <sup>2</sup> ) Strand		
For geometrical data, detailing, mechanical strength, acoustic insulation parameters and durability see design Specification	Design Drawings and Specification Related to Client Requirements		
Dangerous Substances	NPD		
			BS EN 13225:2013

- The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 6.

This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the manufacturer by:

Dr John Cotton CEng MICE,  
Engineering Manager

Date: 22<sup>nd</sup> February 2021

# Declaration of Performance

DOP/BP/SW-Beam, Columns and Frame Elements



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PRECAST PRODUCTS

Reinforced precast product –Columns, Beams and Frame Elements

Essential Characteristics	Performance
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For geometrical data, detailing, mechanical strength, acoustic insulation parameters and durability see design Specification	Design Drawings and Specification Related to Client Requirements
Dangerous Substances	NPD

See Also Declaration of Performance DOP/BP/SW- Columns, Beams and Frame Elements

The performance of the product identified above is in conformity with the declared values, when installed in accordance with the manufacturer's instructions and general purpose or lightweight mortars.

1. Unique identification code of the product type.

Type	Description
Beam	Element, usually horizontal, for carrying loads primarily by flexure
Column	Vertical bearing element subject mainly to compression
Frame	Structure composed of two or more linear elements together to provide structural stability

2. Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article 11(4): Precast Concrete product – Linear Structural Elements
3. Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the manufacturer: Construction of the buildings & other civil engineering works except bridges.
4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required under Article 11(5):

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5. System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V:

**System 2+**  
**1333-CPR-00222**

6. Declared Performance

Essential Characteristics	Performance	Harmonised Technical Specification	
Concrete Compressive Strength	C40/50 (N/mm <sup>2</sup> )	BS EN 13225:2013	
Ultimate Tensile Strength	650 (N/mm <sup>2</sup> )		
Grade B500A: Ultimate tensile strength	525 (N/mm <sup>2</sup> )		
Grade B500B: Ultimate tensile strength	540 (N/mm <sup>2</sup> )		
Grade B500C: Ultimate tensile strength	575 (N/mm <sup>2</sup> ) min. 675 (N/mm <sup>2</sup> ) max		
Tensile yield strength(All grades)	500 (N/mm <sup>2</sup> )		
Wire / StrandUltimate Tensile Strength	1770 (N/mm <sup>2</sup> )		
Tensile 0.1% Proof stress	1556 (N/mm <sup>2</sup> ) Wire		
Tensile 0.1% Proof stress	1551 (N/mm <sup>2</sup> ) Strand		
For geometrical data, detailing, mechanical strength, acoustic insulation parameters and durability see design Specification	Design Drawings and Specification Related to Client Requirements		
Dangerous Substances	NPD		
			BS EN 13225:2013

7. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 6.

This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the manufacturer by:

Dr John Cotton CEng MICE,  
Engineering Manager

Date: 22<sup>nd</sup> February 2021