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# TECHNICAL INFORMATION

## BLUE CIRCLE PHOENIX®

Portland-Fly Ash Cement (CEM II/B-V 42,5N) **Bulk Product Data Sheet**



A factory-manufactured Portland-fly ash cement.  
Suitable for:

- Large pours, to reduce the risk of early-age thermal cracking.
- Reducing attack on concrete in sulfate conditions.
- Improved surface finish of concrete.

Blue Circle PHOENIX® Portland-fly ash cement conforms to BS EN 197-1 CEM II/B-V 42,5N. It is a quality-assured cement with independent third-party certification and carries a CE Mark.

### APPLICATIONS

Blue Circle PHOENIX is a Portland-fly ash cement that is recommended as an alternative to Portlandcement in the following applications:

- As a moderately low-heat cement to reduce the risk of early-age thermal cracking in large pours.

- To reduce attack on concrete in chemically-aggressive ground conditions as defined in Building Research establishment Special Digest 1 and BS 8500: Concrete – Complementary British Standard to BS EN 206, where it is designated as CEM II/B-V+SR.
- To improve the surface finish of concrete, particularly in harsh and low cement content mixes.



### PROPERTIES

Blue Circle PHOENIX Portland-fly ash concrete – when compared with Tarmac bulk Portland cement concrete at the same cement content – has the following properties:

- Slower strength development and potentially higher long-term strength.
- The appropriate cement content for concrete of a given 28-day cube strength and slump should be determined from trial mixes.
- The cement content may differ from that of an equivalent Portland cement (CEM I) concrete in certain circumstances. In particular, where a high-strength concrete is required, the cement content may be slightly higher than for CEM I.
- Slower setting times.
- Reduced water demand.
- Improved placing and finishing.
- Darker in colour.

### AVAILABILITY

Blue Circle PHOENIX Portland-fly ash cement is available in bulk only. Details of availability can be obtained through the contacts listed below.

### CONDITIONS OF USE

- Concrete, mortars and grouts containing Blue Circle PHOENIX Portland-fly ash cement must be specified and used correctly for best performance.
- The cement content must be correct and the water:cement ratio as low as possible consistent with satisfactory placing, thorough compaction and effective curing. When using Blue Circle PHOENIX, it is particularly important that effective curing is applied. See the information sheet 'Site Guide for using Blue Circle PHOENIX Concrete' for further details.
- The final finish quality of this material will depend upon the operative having the required skills, and a familiarisation with the materials and its application methods.

**The content of this data sheet is correct at the date of publication. Please check our website: [www.tarmac-bluecircle.co.uk/bulk](http://www.tarmac-bluecircle.co.uk/bulk) for any subsequent changes.**

#### For further information

[www.tarmac-bluecircle.co.uk/bulk](http://www.tarmac-bluecircle.co.uk/bulk)

**Technical helpdesk**

**Tel: 0845 812 6232**

**E-mail [info-cement@tarmac.com](mailto:info-cement@tarmac.com)**

**Customer services & sales**

**Tel: 0845 812 6300**

**E-mail [customerservice@tarmac.com](mailto:customerservice@tarmac.com)**

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- Tarmac cannot be held responsible where workmanship has not been carried out in accordance with good practice.
- Blue Circle PHOENIX Portland-fly ash cement is manufactured from natural products, and slight shade variations may occur. Blue Circle PHOENIX will also have shade variations from differing manufacturing centres.

### TECHNICAL SUPPORT

Further information and advice on this product and the full range of Tarmac cement products can be obtained through the contacts listed below.

### HEALTH AND SAFETY

Contact between cement powder and body fluids (eg, sweat and eye fluids) may cause irritation, dermatitis or burns.

For further information, including control of soluble hexavalent chromium, refer to the Tarmac Cement Health and Safety information sheet for Portland cement products.

The information in this data sheet is accurate at the time of printing, but Tarmac reserves the right to amend details as part of its product development programme. The information given in this technical data sheet is based on our current knowledge and is intended to provide general notes on our products and their uses. Tarmac endeavours to ensure that the information given is accurate, but accepts no liability for its use or its suitability for particular applications because of the product being used by the third party without our supervision. Any existing intellectual property rights must be observed.