

Ideal for ready mix, precast concrete and wet cast specialist applications.

WET CAST PRODUCT (WCP)

Cenin (WCP) is predominantly a latent hydraulic material that is similar in chemical composition to a calcareous fly ash as described in European Standard EN197-1:2000, Cement, Part1: Composition, specifications and conformity criteria for common cements.

LOW CARBON

only 43kg of CO₂ per tonne and falling!

ULTRA LOW CARBON CEMENT REPLACEMENT



Cenin (WCP) is predominantly a latent hydraulic material that is similar to a calcareous fly ash.

Cenin (WCP) like calcareous fly ash is a fine powder, having hydraulic and/or Pozzolanic properties. It consists essentially of reactive calcium oxide (CaO), reactive silicon dioxide (SiO₂) and aluminium oxide (Al₂O₃). The remainder contains iron oxide (Fe₂O₃) and other compounds.

Typical Chemical composition of Cenin (WCP)

Cenin (WCP) contains the same oxides as Portland cement and other cement replacements but in chemically designed proportions.

| Composition | CaO | SiO ₂ | Al ₂ O ₃ | Fe ₂ O ₃ | MgO |
|-----------------|------------|------------------|--------------------------------|--------------------------------|-----------|
| GGBS | 39% | 36% | 12% | 0.2% | 8% |
| Portland Cement | 65% | 20% | 5% | 2% | 1% |
| WCP | 45% | 30% | 12% | 1% | 6% |
| PFA | 6% | 48% | 29% | 9% | 3% |

Features & Benefits

- **Ultra Low Carbon Material**
- Bulk deliveries for companies with single silo capacity
- Reduced heat of hydration in large pours *1
- Faster setting times in cold climatic conditions *1
- Higher early strength than other standard cement replacements *2
- Reduced pigment and improved colour enhancement*2
- Production of low carbon products
 - 1 Ready mix concrete
 - 2 Precast concrete

Applications

Wet Cast Product (WCP) is a chemically engineered product specifically formulated and designed for the requirements of the ready mix and precast concrete industry as well as all other wet cast specialist applications and production processes.



CENIN
Cement Replacements
that don't cost the earth

Standards

Cenin operates a quality management system that is third party audited to the following standard:

- ISO 9001:2008 Quality Management Standard

Product control testing is conducted following recommendations in the following standard

- ISO 17025 : 2005 General requirements for the competence of testing and calibration laboratories

Deliveries

Cenin Cement Replacements are available in bulk deliveries using standard powder tankers with an average load of 28 – 29 tonnes.

All Cenin drivers are fully trained and experienced in all aspects of powder handling; it would be appreciated if all discharge zones are fully maintained and accessible at all times of delivery.

Health and Safety

Contact with wet cementitious materials, wet concrete or mortar can cause irritation, dermatitis or alkali burns. Contact between cementitious materials and body fluids (eg. sweat and eye fluids) can also cause irritation. There is serious risk to the eyes so if these circumstances arise immediately wash the eye with clean or sterile water and seek medical advice immediately. After contact with skin wash affected area with plenty of clean water.

- Wear suitable protective clothing including eye, face and gloves at all times.
- Keep out of reach of children
- Cenin products are fully compliant with the requirements for water-soluble chromium (VI) content in Annex XVII of the REACH regulation.

Technical Support

Cenin limited has its own independent cement and concrete laboratories and is continually monitoring its products and processes to ensure continual conformity.

We also support our customers on product development and independent analysis.

Each batch of product we supply is thoroughly tested and analysed and this data is made available to the client. We also store a sample from every load we deliver for future analysis, quality control and monitoring purposes.

**Cenin Cement
Replacements:
only 43kg of CO₂
per tonne**



ENVIRONMENT

Summary of emissions

An independent assessment has been carried out and has concluded that, under current operational infrastructure and practices, the GHG emissions associated with Cenin cement replacement products, cradle to gate, are equivalent to 43kg of CO₂ per tonne of product. Cenin are in the process of building a renewable energy plant to provide its own heat and power which will further reduce the carbon footprint of its cement replacement products to approximately 16kg of CO₂e per tonne of product.



The Research Centre
Unit 1, Parc Stormy,
Stormydown, Bridgend,
Wales, UK CF33 4RS

Telephone: +44 (0)1656 789970
Fax: +44 (0)1656 784099
Email: sales@cenin.co.uk