

ENVIROCore²⁰¹

ENVIROCore²⁰¹ is a high quality classified Class F Fly ash product, meeting the requirements of AS/NZS 3582.1.

Applications

Fly ash can be blended into cement and concrete as an supplementary cementitious material, replacing a portion of the general purpose cement. It can be used in situations where workability and/or durability considerations dictate the use of a blended cement, or in situations in which lower embodied carbon is required within the mix.

Fly ash or Flyash blended cements are also suitable for use in road stabilisation, where the delayed setting time results in increased working time available for contractors to form pavements.

Technical Advantages

Fly ash is a very fine material generally with a spherical particle shape and when incorporated into a concrete mix can be expected to provide the following benefits:

- Improved workability and pumpability
- Improved long-term strengths
- Reduced heat of hydration, resulting in reduction of thermal cracking
- Reduced water demand and bleeding
- Reduced permeability
- Improved resistance to sulphate and chloride attack
- Reduced potential for Alkali-Silica Reaction

Typical Composition and Properties

AS/NZS 3582.1 Specification Requirements

		<i>Special</i>	<i>Grade 1</i>	<i>Grade 2</i>
Moisture:	0.1%	0.5% Max	0.5% Max	0.5% Max
LOI:	0.3%	3.0% Max	4.0% Max	6.0% Max
Passing 45µm Sieve:	89%	85% Min	75% Min	55% Min
SO ₃ :	0.9%	3.0% Max	3.0% Max	3.0% Max
Chloride:	<0.002%	0.1% Max	0.1% Max	0.1% Max
Relative Water:	88%			
Relative Density:	2.63			
Strength Index:	122%	105% Min	75% min	-
Total Alkali (% NaEQ):	3.66%			
Chemical Composition: (SiO ₂ + Al ₂ O ₃ + Fe ₂ O ₃)	81%	60% Min	60% Min	60% Min

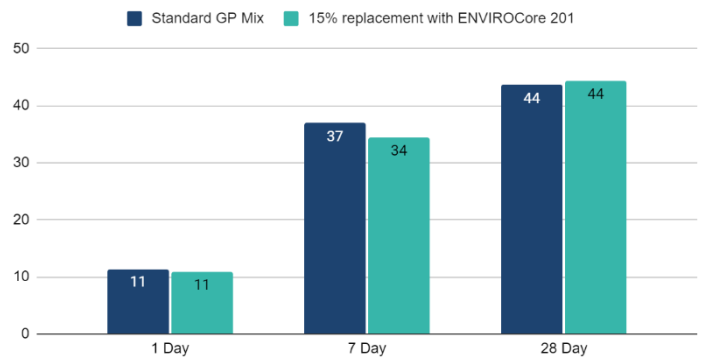
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Concrete Properties and Characteristics

With an appropriate mix design, concrete partitioned with fly ash has compressive strength equivalent to that of concrete made with GP cement at 28 days and higher strengths at later days (56 days and beyond).

Concrete Mix Performance

Standard 40MPa mix design, w/c ratio = 0.53



Handling, Storage & Safety

Handling & Storage

The shelf life of Holcim ENVIROCore is dependent on the storage conditions. It is necessary to be stored in dry conditions and protected from rain, dew or any other moisture source to prevent lump formation

Availability:

ENVIROCore is available in bulk tanker

Safety Datasheet:

Our safety data sheet can be downloaded from our website

<https://www.holcim.co.nz>



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