

Description and Uses

ACS Cement GP is a general purpose cement which meets Australian Standard AS3972, type GP.

It has been specifically manufactured for concrete, mortar, render, plaster, foundations and any other project requiring a high strength cement.

Packaging

ACS Cement GP is available in 20kg bags.

Mix Ratios

The following mix ratios are based on a 20kg bag of *ACS Cement GP*:-

| | Cement | Sand | Stone or Gravel | Lime | Bags per m ³ |
|--|--------|------|-----------------|------|-------------------------|
| High Strength & Water Tight | 1 | 1.5 | 3 | na | 21 |
| General Use | 1 | 2.5 | 4 | na | 16 |
| Foundations & Large Areas | 1 | 2.5 | 5 | na | 14 |
| Mortar | 1 | 4 | na | na | na |
| Mortar Composite | 1 | 6 | na | 1 | na |
| Render/Plaster | 1 | 3 | na | na | na |

Compatibility

ACS Cement GP may be blended with other cements complying with AS 3972. It is also suitable to blend with fly ash and/or blast furnace slag complying with AS 3582.

Application

1. Choose and calculate the appropriate aggregates to mix with *ACS Cement GP* depending on usage (use the table above as a guide).
2. Accurately measure the cement and aggregate and mix thoroughly until an even consistency and colour is achieved.
3. Add water slowly and continue mixing until the mixture is the right consistency. Avoid overwatering as this will lower the strength of the mix.
4. Place and compress the mix well, being careful not to over-finish the surface.

Curing

Allow a minimum period of seven days for curing, maintaining a moist condition where possible. Water sprays, wet sand or moisture retaining techniques, such as polyethylene sheets or curing compounds can be utilised.

For normal class concrete, curing can produce a compressive strength 80 to 100% greater than concrete not subjected to curing. Water application or moisture retaining curing is more effective for lower grades of concrete.

For concrete strengths of 40 MPa and above, curing is equally important. However, the type of curing mechanism is considered to be less critical.

Curing will also affect other concrete properties including:

- Reduction in the potential for plastic cracking.
- Improvements in surface quality, durability and impermeability.

- An improvement in abrasion resistance.
- Reduction in the carbonation rate.

Clean Up

Clean all surrounding areas and surfaces immediately with water, ensuring no waste or contaminated water ends up in drains or waterways.

Technical Performance

The following table provides an example of some typical cement properties of *ACS Cement GP*:-

| Property | Type GP | AS3972 |
|-------------------------------------|---------------------------|-------------------------------|
| Setting Time | Initial | 1.5-2 hours 45mins (min) |
| | Final | 2.5-3 hours 10 hours (max) |
| Constancy of Volume (sounding test) | 1.0 mm | 5.0mm (max) |
| Fineness Index | 400-440m ² /kg | |
| Compressive Strength (Mortar) MPa | 3 Day | 34-36 MPa |
| | 7 Day | 48-50 MPa 25 MPa (min) |
| | 28 Day | 59-63 MPa 40 MPa (min) |

Storage

ACS Cement GP will keep for up to 12 months if kept in a dry store, off the ground and providing the bags remain sealed. High temperature and high humidity conditions may alter the cement properties and reduce the storage life of the product.

Precautions

ACS Cement GP contains cement powders including crystalline silica, which can be harmful to the skin. During use, avoid inhalation of dust and contact with the skin and eyes. Wear suitable clothing, gloves, eye

protection and respiratory protective equipment.

If contact with the skin occurs, thoroughly clean the area with plenty of fresh water and soap.

In case of contact with the eyes, rinse with plenty of fresh water and seek medical advice.

If swallowed, seek medical attention immediately – **Do not** induce vomiting.

For further information consult the **Material Safety Data Sheet** and read the product label carefully before use. **Material Safety Data Sheets** are available by phoning **1800 077 744**.

Please Note:- The information given in this data sheet is based on our current knowledge of the product when properly stored, handled and applied. We cannot guarantee that the product will be suitable, effective or safe when used for any purpose other than its stated uses.

To the extent that it is lawful, we exclude warranties implied by law and limit our liability to the cost of replacing the product. We accept no responsibility for loss or injury caused by improper use, incompetent preparation, inexpert or negligent application, or ordinary wear and tear.

Service or advice given by our staff should not amount to responsibility for the project - since the owner, or their contractor (and not River Sands), is responsible for procedures relating to the application of the product.



Applied Concrete Solutions
A Division of River Sands Pty Ltd
 683 Beenleigh Redland Bay Rd,
 Carbrook Qld 4130
 Ph: 07 3287 6444 Fax: 07 3287 6445
 Sydney: (02) 9756 1711
 Melb: (03) 9311 9225
 Perth: 0423 023 164
 Toll Free Helpline: 1800 077 744
www.appliedconcretesolutions.com.au