

ARMSTRONG CHEMICALS PVT. LTD.,
Bengaluru
An ISO 9001 : 2008 Certified Company



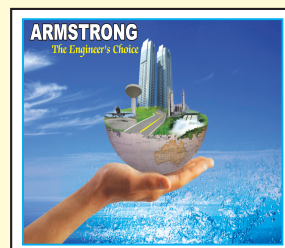
(Structural graded high build polymer modified reinstatement mortar Admixture)

DESCRIPTION OF THE PRODUCT :

ROOFCRETE AR 576 is a high build, super strength polymer modifier with cementitious structural grade reinstatement mortar admixture for repairs and rehabilitation of damaged / distressed RCC members.

TECHNICAL DESIGN OF THE PRODUCT

ROOFCRETE AR 576 is particularly design to use as a re-instatement mortar admixture in alternate to the normal mixes of mortar/concrete for repairs and rehabilitation of the deteriorated structures which requires high quality ingredients to get high compressive, flexural strength for both vertical as well as horizontal applications for concrete repairs. ROOFCRETE AR 576 repair mortar admixture can be applied to a minimum thickness of 6mm to 25mm in vertical applications and upto 100mm thickness in smaller pockets. ROOFCRETE AR 576 repair mortar admixture can be applied upto 40mm thickness in horizontal applications, and it can also applied upto 100mm thickness built in two to three layers in horizontal applications. ARMSTRONG also suggest to use ROOFCRETE AR 576 admixture structural grade polymer modified reinstatement concrete as mentioned hereunder for the applications where it requires more than 50mm thickness as per the site conditions by addition of graded aggregates at equal ratio recommended.



FEATURES AND BENEFITS

- Polymer modifier provides excellent resistant to the cracking and to over comes the risk of shrinkage.
- Chloride free best performer for reinforced concrete.
- Highly durable and high flexural strength even thin sections of concrete.
- Low permeability and protection against moisture, atmospheric conditions.
- High compressive strength for structural repairs and rehabilitations.
- Excellent workability, better cohesion for mortar/concrete mixes.
- Pre-packed product to eliminates the site batch errors and maintain quality of ingredients. When we add 2 ltrs. per 50 kgs. Cement Concrete / Mortar

TECHNICAL PROPERTIES

1	Flexural strength (as per the ASTM C)	9 N/mm ² @ 28 days aging
2	Compressive strength (as per ASTM C)	13N/mm ² / day & 48N/mm ² @ 28days aging
3	Setting time (BS 4551 pt 14:1980 Initial setting Final setting	3 Hours 10 Minutes 4 Hours 15 Minutes
4	Chloride Ion diffusion (In mg/ltr.)	- Nil - (after 24 hours)
5	Effect of carbonation (mm)	- Nil -
6	Water absorption percentage (as per BS1881 of 1970)	0.40 % (after 24 hours)
7	Impact strength	3.9 Kg/cm @ 28days aging
8	Abrasion strength, % of volume lost	7 % @ 28 days
9	Chemical resistant	Highly impermeable to most diluted Acids, Alkalies, Gases, Chloride Ions, Oxygen etc.,
10	Thermal expansion in co-efficient	7 to 11 x 10 ⁶ /°C
11	Density of wet mortar	Approximately 2200 Kgs / M ₃

APPLICATION INSTRUCTIONS

SURFACE PREPARATION : The surface which has to receive the repair mortar shall be thoroughly cleaned to remove dirt, dust, loose particles, oil, grease, corrosion deposits and algae, fungus growth with wire brush or wooden mallet and roughed / laitance if any shall be removed by scabbing of the effected area and oil and grease shall be removed by using detergent scrubbing or by steam cleaning.

All the corroded steel reinforcement shall be exposed and loose scales corrosion deposits shall be removed by wire brush or by applying rust removing material, the extremities of the repair shall be cut back to a depth of 10mm to 15 mm to avoid the sharp edging and to provide a square edge. Applying one coat of corrosion preventive coating (ROOFGUARD AC / ROOF COAT MF) to the exposed steel reinforcement. Providing and applying one coat of polymer bonding agent (ROOFBOND SBR /ROOFBOND PB or epoxy bonding agent ROOFBOND EP) as per the site conditions, immediately before application of the – ROOF CRETE AR 576 mortar admixture

MIXING OF ROOF CRETE AR 576 MORTAR ADMIXTURE :

For normal application of structural repairs take 4.5 Ltrs to 5.5 Ltrs of pure water in a suitable drum, to this add 1 Ltr. of High solid polymer liquid mixing for atleast 2 Minutes and later, 25 of cement+required sand shall be added gradually to the designed / concrete mortar mix and mixing for 3 to 5 minutes until to achieve a homogenous mix.

The mixed ROOF CRETE AR 576 mortar admixture shall be applied on wet condition of the applied bonding agent to the prepared surface by clean trowel, the mortar shall be thoroughly compacted on to the bonded substrate and all around the exposed reinforcement at an average thickness of 20mm and neatly finished by striking off with straight edge wooden and plastic floats or damp sponges to get the desired surface finish.

INSTRUCTIONS WHILE USING CEMENT MORTAR :

ARMSTRONG suggest to use ROOF CRETE AR 576 high solid polymer liquid 1 to 2 Ltrs, with required clean water and to this add 50 Kgs of cement mortar (1:3 mix site batch mixing) using fine graded river sand and fine quality of cement in alternate to the two part system of ROOF CRETE AR 576 specially designed for locations requiring the above mentioned benefits, to reduce the cost effect and transportation problems.

STRUCTURAL GRADE POLYMER MODIFIED REINSTATEMENT CONCRETE :

As mentioned earlier ARMSTRONG recommends to use structural grade of polymer modified reinstatement concrete by adding Roofcrete AR 576 as an admixture where the structural deterioration was in high scales and the application required more than 20mm thickness such as columns, beams, roof slabs, concrete walls, water retained structures and particularly where using of vibrator is difficult to achieve high compressive strength of the repairs, and to achieve the above mentioned benefits.

MIXING OF POLYMER CONCRETE :

Take required quantity of pure water in a suitable drum to this add 2 Ltrs. of ROOF CRETE AR 576 of high solid polymer liquid form, mix at least for 2 minutes, to this add the designed dry cement concrete/mortar of 50 Kg. cement mix shall be added gradually to prepare the acrylic modified ROOF CRETE AR 576 reinstatement concrete. After applying the appropriate bonding agent the prepared ROOF CRETE AR 576 reinstatement concrete can be applied for repairs and rehabilitation of the structures.

DOSAGE : 500ml to 2 Ltrs per 50 Kgs. Cement

PACKING : 1, 5, 10, 20 & 210 Ltrs.

STORAGE AND SHELF LIFE : 2 Yrs. from the date of Manufacturing.

PRECAUTIONS :

- Make sure the surface should be perfectly cleaned.
- Store the material at cool and dry place

Whilst **ARMSTRONG CHEMICALS PVT. LTD.** strives to ensure that any advice, information or recommendation given are appropriate and correct. It cannot accept any liability directly or indirectly arising out of the use of products since the method and place of application of the products are beyond its control.



Manufacturers :

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