

Pavement Wear Repair

PWR

RAZON



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Pavement Wear Repair - PWR

(High Performance non-shrink, shrinkage compensating, high strength mortar for wear and abrasion resistance)

Razon Pavement Wear Repair - PWR is a cementitious, non-shrink general purpose mortar developed specially for concrete repair works in pavements, facing extreme conditions as well as heavy traffic. It performs exceptionally well as an abrasion and wear resistance system.

It is a ready to use, factory prepared blend of cementitious materials, zirconia additives, high grade inert fillers & polymers to improve wear resistance and shrinkage compensating properties which provides a free flowing, non shrink high strength concrete repair material.

Areas of applications

- Repairs to concrete structures, spalled concrete, potholes etc.
- Repairs to concrete pavements on internal roads, industries, highways etc.
- Surface repairs of eroded pavement where aggregates of the rigid pavement are exposed.
- Repairs to areas where compaction of mortar is difficult or not possible.

Method of Use

The area to receive Pavement Wear Repair - PWR treatment must be cleaned with compressed air. The surface to receive mortar must be sound and should have a texture to aid the keying of the mortar with the substrate. If formwork is used to restrain the mortar, it must be coated with Razon Shutter Coat SC 17000 for a clean release. Any reinforcement must be free from rust or scale deposits, MS reinforcements may be cleaned with Razon Metal Clean 101 hours before pouring PWR. Prior to pouring Pavement Wear Repair PWR, the surface of the void must be made damp, and excess water must be removed. Apply a primer coat of Razon Anchorex 284 & Ordinary Portland Cement, so as to get a surface ready to receive the mortar.

Pavement Wear Repair PWR may be mixed traditionally in a bucket with a paddle attached to a drill machine, for large pours, a concrete mixer may be used. Addition of not more than 3-3.4 ltrs of clean water to one bag PWR produces flowing mortar, capable to be poured into the most difficult areas without compaction.

This Pavement Wear Repair PWR may be poured or pumped into the void and be allowed to harden for 24 hours. The exposed surface must be minimal to avoid loss of moisture from the surface. Curing of minimum 7 days shall be done by ponding.

Performance

Typical hardening details are provided below:-

Compressive strength (in N/mm ² at 30 ⁰ C) <i>As per BS 6319 Pt 2</i>			
24 hours	72 hours	7 days	28 days
10	30	40	50

Abrasion Resistance of 7 days cured PWR Mortar <i>As per IS 1237:2012</i>		
Abrasive Wear of RAZON PWR specimen	W/p ratio	Result as per IS
2.42 mm		17.5% “HEAVY DUTY”
1.96 mm		15 % “HEAVY DUTY”
1.66 mm		12.5% “HEAVY DUTY”

Specifications of “HEAVY DUTY” abrasion resistance of mortar per IS 1237:2012 is when the abrasion wear of individual specimen is less than 2.5mm

Pavement Wear Repair PWR is designed to perform for a maximum depth of 100 mm. If deeper pours are required, use of selected size aggregates available as RAZON’S

“Grits 120” is recommended in the proportion of 1: 0.7 :: Razon PWR : RAZON Grits 120.

In this event, the water balance must not be disturbed, and hence it is advisable to use the grits in SSD condition. This water balance shall not negatively effect the strength of the modified mortar and shall increase the strength by about 10% at all ages.

Packing

Pavement Wear Repair - PWR is available in 20 kg hermetically sealed bags.

Product Data		
No	Characteristics	Property
1	Consistency	Dry powder
2	Water content per 20 kg bag	Approx 3.3 ltr
3	Compressive strength at 28 days	> 50 MPa
4	Flexural Strength at 28 days	> 4 N/mm ²
5	Coefficient of Thermal Expansion	Similar to that of Concrete
6	Plastic Density at 25 ⁰ C	2100 -2300 kg/m ³
7	Presence of Chlorides	Nil, PWR neither initiates nor promotes corrosion
8	Shelf life	6 months if stored in air tight packing away from direct sunlight and moisture.
9	Packing	In 20 kg bags

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It is strongly recommended that site trials be conducted using site conditions and available raw materials to evaluate the product. Since site materials and conditions are beyond our control and since above suggestions and recommendations are based on our site trials and laboratory product evaluation & trials, and since methods of use at site are beyond our control. Hence, no guarantee can either be implied or enforceable. All Razon datasheets are updated on a regular basis. It is the user's responsibility to obtain the latest version.



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