

Bad Roads can be relegated to old memories, with state of the art MicroTech Road Surface Solution!

Switch over to Grouted Macadamized Road Surface, for safe and smooth rides!

Vision:

To bring benefits of Cement Surface to Bituminized Roads so as to make them less affected by rain, sun, oil, etc. to make them less brittle and thus last longer.

Ready to Use, Fast to Settle Surface Technology:

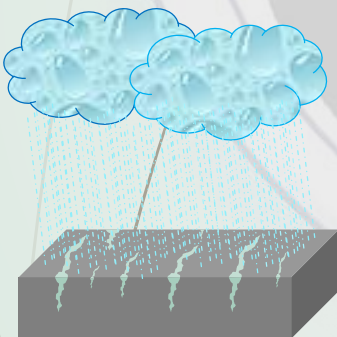
- Developed for Flexible Pavements
- Technology Suite for resurfacing, strengthening of existing roads
- Comprises coated aggregates and cementitious grout
- Has high stability, high modulus of elasticity and high wear resistance



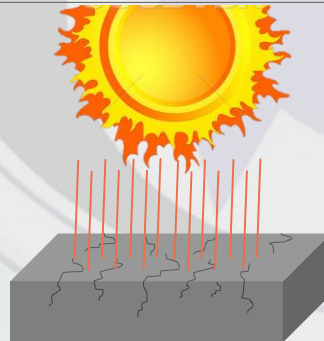
Grouted Macadam Technology:

- Grouted Macadam consists of an open graded coated aggregates with voids completely filled up with a special cement based grout. The grout is a dry, ready mixed which, when mixed with water, is a very light fluid material with high properties of penetration and internal cohesion.
- Grouted Macadam is laid Joint-less. The special coated aggregates provide the flexibility and the grout, with its characteristic dense micro structure, high wear resistance and high durability in aggressive environments.

Know Natural & Manmade Causes of Failure of Bituminous Road



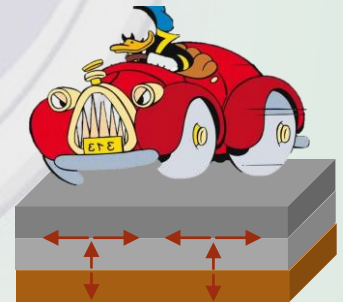
Water Penetrates and destroys the bonding between bitumen and aggregates by stripping action thus causing cracks



Sunlight (UV): rays make the asphalt brittle leading to loss of bond and thereby cracking of surface



Petroleum Spills: Gasoline and other fuel spills soften and dissolve the asphalt and exposes loose aggregates



Fatigue- Cracking due to horizontal strain below bituminous layer
Rutting - Caused by transfer of vertical strain to the sub-grade

Now You can say Bye Bye to Bad Roads with Grouted Macadamized Road Surface Solutions!

Genesis of Grouted Macadamized Surface

Stiffness

The modulus of elasticity is measure of stiffness of materials. Significant reduction in sub grade stresses and deflections are reported when stiffer materials are used in the upper layers of a flexible pavement. For any given sub grade soil, therefore, the better load-spreading capabilities of those stiff layers allow each to be thinner than the equivalent layer of unbound granular material required to meet permitted subgrade distress or limiting deformation criteria. Therefore in developing Grouted Macadam, this property has been kept under control so that it is higher than bituminous materials and well below concrete.



Surface Finish

- Grouted Macadam surface finish is developed based on how much time is available for opening the road to traffic
- The surface finish will improve if 2/3 days extra are available for working on improving the surface finish
- In busy city roads this time is usually not available and as a trade off a the surface finish obtained without additional working to improve the same is accepted

Developed by Scientists, Tested and Certified, GM is every Road Engineer's Best Friend!

STRENGTH OF GROUT Kg/cm ²		
SETTING	TARGET	MEASURED
03 Day :	100	170
07 Day :	200	260
28 Day :	350	400

BULK DENSITY (g/cc)	
BITUMINOUS CONCRETE	GROUTED MACADAM
2.34	2.35
SIMILAR TO BITUMINOUS MIX	



Material	Rapid Chloride Penetration (Coulomb)	Abrasion Test (mm)	Water Stripping
BM	8000	5.0	Disintegrates
G Macadm	2000	3.1	No Disintegration
Concrete	4000	3.4	No Disintegration
Comments	GM offers high resistance to water penetration GM has high erosion resistance GM do not disintegrate due water		

Simple to Execute Technology backed by Hi-Tech Formulation and Strict Quality Control



GM on Expressway Viaduct, Lonavala



GM Surfaced Road in Busy City Centre



Designed & Developed by Our Partner: Densen Technologies

Brought to You by PROCAT, Catalysts of Business Transformation

DENSEN TECHNOLOGIES
Thane, Maharashtra

Profile / Product Range

We are one of the renowned manufacturers, exporters and suppliers of wear Resistant and Corrosion resistant equipments in Cement Industry, Thermal Power industry, Steel Industry and Petrochemical industry. Our Product DRC is Trade marked.

PROCAT
Transformation And Networking LLP

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CATALYST
FOR BUSINESS
TRANSFORMATION

PROCAT (Professional Catalysts) is a Business Transformation and Networking Enterprise, formed by collective strength of industry experts and enriched by combined ocumen of business stalwarts.

We become a Part of your Management for predefined Time bound Intended Wealth Creation. Therefore we call ourselves PROFESSIONAL CATALYSTS.

The World is catching up. How About You?

Call Us and we would be happy to respond!