# RainStorm

# Road Pavement Stabiliser with PolyMag 80

PolyMag applications • Sand and road dust suppressant and stabiliser • 100% Australian made • Environmentallybenign • Extremely easy to apply

## History

Rainstorm has developed a "madein-Australia" polymer emulsion combination that combines all the best features of the existing polymers with a **world class dust suppressant** DustMag.

- Blended to stabilise soil and manage dust
- DustMag retains moisture
  for dust control
- Polymers bind particles for long term protection
- Polymag 80 blended for Australian weather and site specific conditions

## Description

PolyMag 80 is a concentrated, liquid polymer emulsion, combined with our hygroscopic solution based on magnesium chloride "DustMag". A water-based emulsion, PolyMag 80 mixes very readily with water that is used as a carrying agent and is then sprayed onto, or mixed into, the surface to be treated. Transported in bulk or 1000 litre containers it is easily transported to distant jobsites and can often be applied with existing equipment onsite.

# Application and Product Life

PolyMag 80 is very easy to apply. Water is used as a carrying agent, which conveys the product into the soil matrix. Standard road building principles apply around Optimum Moisture Content (OMC) to achieve good compaction. Drainage, road grade and compaction are critical. The water then evaporates and the polymer emulsion "sets" usually within a few hours leaving a wind and water resistant surface. For pathways and roadways the product should be incorporated into pre- moistened gravel using a rotary hoe or similar equipment. Moisture is retained through the DustMag portion and structural integrity of the soil is enhanced with the Polymer aspect.

# Soil Stabilisation

PolyMag 80 provides optimum penetration and bonding when applied to fine or granular materials. Applied to pavement materials as a soil stabiliser it will provide a durable surface.

#### **Potential Uses**

- Unsealed Roads
- Truck Terminals
- Golf Courses
- Parks and walkways
- Driveways
- Rail yards
- Mine operations
- Logging operations

## **Application Rates**

Mixed with water to achieve Optimum Moisture content (OMC) to achieve ideal compaction.

The target amount of PolyMag 80 will vary depending on soil conditions and road usage.

Low volume light vehicle movement: Apply 200 to 400 ml PolyMag 80 per m2 for every 50mm pavement depth. 150mm ideal min depth.

**High volume heavy vehicle movement:** Apply 400 to 600 ml PolyMag 80 per m2 for every 50mm pavement depth.



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#### How It Works

As an acrylic polymer base, PolyMag 80 consists of extremely long molecular chains that "tangle" together with each other and with the soil matrix creating a homogenous bound surface. PolyMag 80 is produced as a water-based emulsion in order to facilitate easy handling but after application the emulsion "breaks" and the water evaporates. This leaves behind the polymer chains, which are now insoluble. DustMag<sup>®</sup> works primarily because it is hygroscopic, meaning it attracts and retains moisture from the air.

It expedites the compaction process by slowing the rate of evaporation of moisture from the mixture during the use of any compaction equipment and as an

#### The Benefit of Combination

DustMag delays the setting of the polymer by hanging onto moisture. This enables ongoing compaction of the road structure, longer available compaction times and a denser, more stable surface.

PolyMag 80 delays the binding of the particles until optimum compaction can be achieved. Then, as water is released, the polymer sets and improves the road structure while retaining the DustMag.

The DustMag component works to keep moisture in and around the road surface/structure, which helps reduce the degradation of most unsealed roads. Ongoing treatments may be required over time.

Rainstorm's "PolyMag 80" dust control product manages the dust in the dry and sheds water in the wet.

aid in the overall retention of moisture, thus continuing the compaction process during the service life of the DustMag<sup>®</sup> treated area. These two products working together bring a whole new benefit to the industry. **Polymer enhanced Roads!** 

Product is charged by litre. Contact the nearest Rainstorm office and inform them of your job's location and size and they will quickly be able to give you a price. Discounts for large volume purchases can be discussed.



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PolyMag 50 is also available

Less DustMag and more Polymer for a stronger more water resistant Polymer Enhanced Road.

