



plusPATCH

- Reducing Ground Level Ozone One Road at a Time

plusPATCH - Meeting Environmental Standards
– Always Meeting Our Standards of High
Performance Products

The Solution

PlusPATCH is an eco-friendly, cold patch material that is compliant with new state environmental regulations restricting VOC content. Now, this environmentally friendly product with low Volatile Organic Compounds (VOC) content is the sustainable, recyclable road repair solution. Produced at a temperature lower than most cold patch mix products, the lower VOC's levels make *plusPATCH* the asphalt industry's environmentally safe alternative.

Why?

The Northeast region of the United States must submit plans to the Environmental Protection Agency (EPA) demonstrating how they will meet their 8-hour National Ambient Air Quality Standards (NAAQS.) The Ozone Transport Commission (OTC) a multi-state organization created under the Clean Air Act (CAA) is responsible for advising the EPA on transport issues and providing solutions to ground-level ozone problems in this region of the country. The OTC developed a list of control measures to help states reach their 8-hour ozone standards, one of which is Cutback and Emulsified Asphalt Paving. Recommendations were made by the OTC to completely ban the use of Cutback Asphalt during the ozone season and greatly reduce VOC emissions from Emulsified Asphalts. These recommendations have been put into place in several states while others have pending regulations that will adopt the restrictions.

Meeting State Regulations

PlusPATCH meets the imposed VOC restrictions. Connecticut was the first state to adopt the regulations, effectively banning the use of cutback asphalt during the ozone or summer months and greatly reducing VOC emissions from Emulsified Asphalts. The States of Maine and New Jersey have also passed identical regulations. All roadwork repairs requiring cold patch must be made with a VOC compliant material. *plusPATCH* is the product of choice.

Performance and Handling

PlusPATCH will out perform conventional cold patch mix products. Its superior adhesive properties keep *plusPATCH* in place long after other cold patch materials begin to fail. Open graded aggregate gradation locks together forming a solid repair that will not shift under traffic loads. *plusPATCH* may be stockpiled for up to 12 months without severe oxidation problems. Ideal for roads, universities, utilities and the private sector, *plusPATCH* is currently available as a bulk liquid and will be available in bags.

plusPATCH™
Tri Products LLC

plusPATCH -
Always a Step Ahead on the Road to Eco-Friendly Products

Specifications

plusPATCH - Asphalt Emulsion

Description

The cold patch material shall be a blend of suitable aggregate, plant-mixed with plusPATCH emulsified asphalt bend, from Tri-Products. The approved aggregate shall be uniformly coated with a thick film of plusPATCH. The cold mix material shall maintain its adhesive properties in damp areas at the time of application, and shall maintain its performance features for a period of one year from the date of manufacture.

Aggregate Gradation

plusPATCH aggregate shall be composed of approved aggregates meeting the following gradation:

Sieve Size	Open Graded	Dense Graded
1/2 inch	100	100
3/8 inch	90-100	90-100
#4	20-60	50-80
#8	5-25	35-65
#50	0-5	6-25
# 200	0-3	0-5

Bituminous Materials

The bituminous material shall be plusPATCH emulsified asphalt blend from Tri-Products and meet the following requirements (ASTM D 977):

Tests on Emulsions:

Viscosity, Saybolt Furol at 25C/77F, SFS	50 seconds min.
Storage stability test, 24-h, %	1 max
Coating ability and water resistance:	
Coating, Dry Aggregate	Good
Coating, After Spraying	Fair
Coating, Wet Aggregate	Fair
Coating, After Spraying	Fair
Residue by Distillation, %	65% min.
Oil Distillate by volume of emulsion, %	0.3%
Sieve test, %	0.10 max

Tests on residue from distillation tests:

Penetration, 25C/77F, 100g, 5s	200 min
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Mix Formula

The mix shall consist of aggregate conforming to aggregate conforming to section II - Aggregate Gradation, mixed with plusPATCH from Tri Products, at the rate of 18 - 22 gallons per ton.

By extraction 5-6% residue.

Manufacturing Procedure

The approved aggregate shall be heated and surface dried, so that when it is blended with plusPATCH emulsified asphalt, the exit temperature shall range from 170F - 190F. plusPATCH should be allowed to cool to ambient temperature, before it is stockpiled higher than 10 feet, or allowed to be placed on sale (approximately 48 hours.)

Handling

plusPATCH may be stockpiled for up to 12 months without severe oxidation problems.

Performance

plusPATCH will out perform conventional cold patches. Its superior adhesive properties keep plusPATCH in place long after other cold patch materials fail. Open graded aggregate gradation locks together forming a solid repair that will not shove under traffic loads.

Environmental

plusPATCH currently meets the emulsified asphalt requirements of CT DEP regulation 22a-17 4-20(k.), ME DEP Chapter 131, NJ Regulation 7:27-16.19

Call us for more information

plusPATCH™

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