



On April 14, 2011, Scott Herman from Cold Mix Manufacturing Corp. demonstrated his company's Green Patch pothole patching product. The demonstration took place at MaineDOT's Western Region Maintenance yard and on a portion of US Route 2 near the office.



The crew prepared the potholes by first squaring off the edges of the hole and removing excess material from the holes. According to Scott, it is not necessary to completely remove all standing water prior to the Green Patch placement. The key is to confine the material within the hole.



Green Patch is available in ready to use 50, 60, and 80 pound bags, by the ton, or in a liquid form ready to be mixed with aggregate onsite in a pugmill. Green Patch uses 40% recycled asphalt and contains no VOCs up to 650°. Instead of petroleum-based oils, only plant oils are used. According to the manufacturer, Green Patch can even be removed and re-used.



Initially, there was considerable consolidation of the material in the bags. Once the bags were loosened up a bit by striking on the ground (think: solidified bags of ice), the material seemed to "flow" out of the bags giving the appearance of hot mix asphalt. The material appeared to be very easy to work with and any clumps were easily broken up with the shovel point.



The material was left with a slight crown to allow water to shed off the patch. A plate vibratory compactor was used for the demo, but in the field compaction from a vehicle tire should prove adequate according to the sales representative.



Following the demonstration in the yard, the material was used on some highway potholes. This particular pothole was an extreme example. While the adjacent pothole is scheduled to be replaced soon, patching a pothole of this magnitude now is critical.

GreenPatch™ COLD MIX ASPHALT PRODUCT, Demonstration, Dixfield, ME



Here, loose material is being placed in the "crater." Three 50 pound bags were required for this one pothole alone. The intent of using bagged high-performance mix is not for every pothole, but rather the persistent potholes that require frequent repairs by crews. The hope is twofold: to cut down on material costs and reduce the crews' exposure to traffic.



The material was compacted first with a hand tamper, and then by the Crew's truck. Several passes are made over the patch with each pass moving from side to side giving downward compaction along with the kneading action of the rubber tire.



The repair nearly ready for traffic. The work involved in a high performance repair like this one is much more than for the typical "throw and go" method, but the hope is for a more durable, nearly permanent repair.



As a final touch, dry Portland cement is applied to the finished patches. This serves to hasten the setup time of the repair and acts as a de-tackifier to help reduce pickup of patching material by vehicles.

Prices quoted by Cold Mix Manufacturing were \$105.00 per ton, or \$0.15 per pound, bagged and delivered.

The patches will be monitored for their durability.

Many thanks to:
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