



TECHNICAL DATA SHEET & INSTALLATION GUIDE

Background

AQUA PATCH is a ready-to-use, permanent repair solution for asphalt and concrete applications. AQUA PATCH is water activated and uses a proprietary blend of organic additives that are environmentally friendly, safe and non-toxic. It produces no hydrocarbon leaching or evaporation, and can be used in all types of weather – cold, warm, wet or dry.

AQUA PATCH was developed and tested extensively over a 10-year period by Maeda Road, one of the largest road contractors in Japan, with more than 100 asphalt plants, and a sophisticated lab for design and testing of innovative pavement materials and methods. The proprietary product has stood up to the test of time, in large and small-scale projects, and has proven to be a truly permanent repair solution that performs as well, or better, than hot mix asphalt – all while being environmentally friendly.

Recommended Applications for Use

For use as a permanent repair of potholes and other deficiencies in concrete or asphalt roadways. The product can be quickly applied to all volume roadways in most climate conditions, reducing the impact to the traveling public. It is readily available whereas hot mix asphalt may not due to weather events, remote locations, or where emergency patch situations are required.

Recommendations for Bag Handling & Storage

Shelf life for the bagged product is 6 months. Keep AQUA PATCH dry, and away from moisture during storage. The durable plastic bags are air tight. Use the product shortly after opening the bag.

Recommendations for Installation

Water/moisture in the repair area is not a problem. In fact, since AQUA PATCH is water activated, it helps accelerate the process. The recommended dosage is as little as one liter of water per 35-pound bag of AQUA PATCH material. Excess water has no adverse effects on the material and is simply displaced over time.

Maeda Road has tested the application of AQUA PATCH in temperatures as low as -10° Centigrade and found that temperatures lower than this did not have the reaction needed due to the solidification of water when it becomes frozen. The testing did find however, once temperatures had risen and thawed the water, the hardening components were then activated, and the mixture hardened. The high end recommended temperature for application should not exceed 50° Centigrade. Based on data collected when tested according to AASHTO T-324-14, AQUA PATCH met typical specifications for rut depth and stripping inflection point when held at 50° C. Data has not been collected at temperatures above 50° C, therefore the recommended temperature for applications should be between -10° to 50° Centigrade.

Composition of Materials

Like its counterpart hot mix asphalt, AQUA PATCH is comprised of aggregates and asphalt binder along with proprietary components that make the product unique. Aggregate materials are a blend of crushed limestone and sand from DOT approved sources. The material has the following properties: ASTM C-127, 128 Absorption = 2.5% max. The current combined blend of aggregate materials is presented below.

Sieve	Percent Passing	Specification
1/2"	98	90-100
3/8"	91	
#4	73	
#8	54	28-58
#16	41	
#30	30	
#50	20	
#100	11	
#200	7.8	2.0-10.0

The asphalt cement utilized meets the requirements for a PG64-22 binder which is integrated with other proprietary oils to contribute between 5.0-8.0% of total mixture by weight.