



Pigmented HACP surfacing.

Photo Source: Iterchimica

**Traffic Range:**

No limitations on traffic volumes. High traffic volumes will cause any surface coatings to wear away faster.

**Life Expectancy:**

15 to 20 years. Surface applied coatings commonly last 1 to 6 years.

**Unit Price:**

Material & Installation: \$4.00 to \$6.70/m<sup>2</sup> (\$3.30 to \$5.60/yd<sup>2</sup>) for spray coating. \$18.00 to \$24.00/m<sup>2</sup> (\$15.00 to \$20.00/yd<sup>2</sup>) for pigment for 25 mm (1 in.) thick HACP layer.

**Appearance:**

Numerous pigment colors are available; Earth tones are most common.

**Advantages:**

Surfacing color can be selected to fit the application and surrounding environment.

**Limitations:**

High cost for the pigments or surfacing coating.

**Product Description:** Pigmented HACP is constructed by one of two methods: (1) the color is incorporated into the HACP surface mixture during mixing at the batch plant, or (2) a colored surface coating can be applied to the HACP surface after construction. Surface color can be achieved by applying a cement-modified acrylic, thermoplastic, or epoxy based coating.



**Blue pigmented HACP.**

Photo Source: Iterchimica



**Red pigmented HACP.**

Photo Source: Iterchimica



Porous HACP parking lot.

Photo Source: Cahill Associates

**Traffic Range:**

Typical AADT < 400.

**Life Expectancy:**

10 to 15 years.

**Unit Price:**

Material & Installation: \$5.00 to \$11.00/m<sup>2</sup> (\$4.20 to \$9.20/yd<sup>2</sup>) for a 50 mm (2 in.) thick lift of porous asphalt concrete.

**Appearance:**

Appearance is generally gray/black with a coarse surface texture.

**Advantages:**

Significantly reduces stormwater runoff.

**Limitations:**

Not suitable for high traffic volumes or heavy truck traffic; Shorter life expectancy than conventional HACP; Frequent maintenance required to clean porous asphalt pores.

**Product Description:** Porous Asphalt Concrete is a paved surface and subbase comprised of asphalt concrete and gravel or crushed aggregate, formed in a manner that results in a permeable surface. Stormwater that passes through the pavement may partially or completely infiltrate the underlying soil; the excess is collected and routed through underdrain pipes.





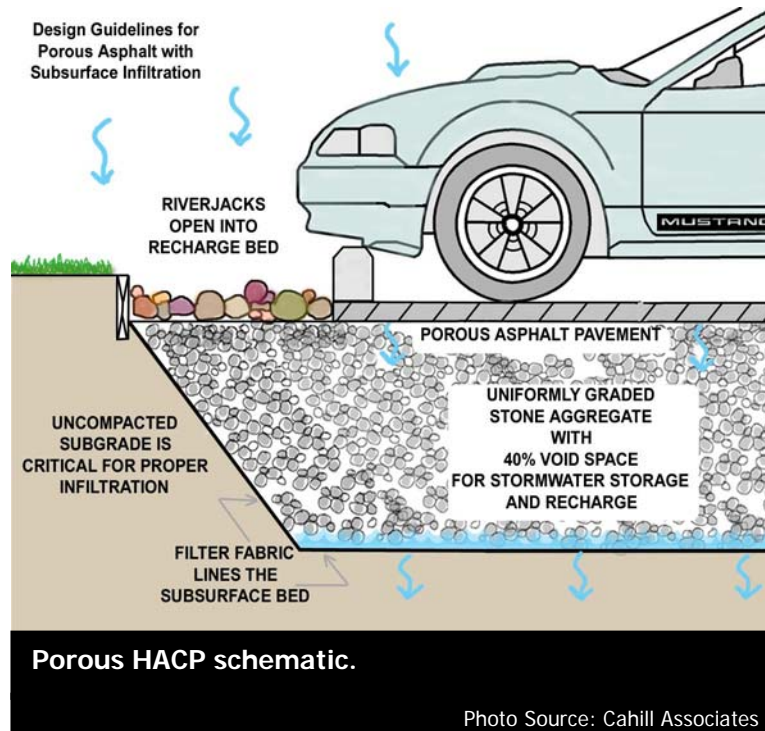
Porous HACP parking lot.

Photo Source: Cahill Associates



Porous HACP roadway.

Photo Source: City of Portland, OR





**Resin Modified Pavement**  
surfacing.

Photo Source: Alyan Corp.

**Traffic Range:**

No limitations on traffic volumes; however, RMP is limited to low speed applications (less than 65 km/hr [40 mph]) due to low skid resistance.

**Life Expectancy:**

15 to 25 years.

**Unit Price:**

Material & Installation: \$12.00/m<sup>2</sup>  
(\$10.00/yd<sup>2</sup>) for 50 mm (2 in.) thick RMP.

**Appearance:**

RMP has a relatively coarse texture and appearance, similar to coarse textured PCC. RMP typically has a light to dark gray color.

**Advantages:**

Low cost alternative to PCC when resistance to heavy loads, tracked vehicle equipment, or fuel spillage is required.

**Limitations:**

Limited to low speed applications due to low skid resistance; Limited use in United States.

**Product Description:** Resin Modified Pavement (RMP) is an open-graded asphalt concrete mixture with 25% to 35% voids that are filled with a latex-rubber modified cement grout. RMP provides many of the performance characteristics of Portland cement concrete with the economy and ease of construction of an asphalt concrete pavement .



# Synthetic Binder Concrete Pavement

# 2.8



Synthetic binder concrete pavement roadway surfacing.

Photo Source: FHWA-EFLHD

**Traffic Range:**

No limitations on traffic volume.

**Life Expectancy:**

15 to 20 years expected.

**Unit Price:**

Material & Installation: New product in United States; pricing is estimated to be about 4 times the price of HACP.

**Appearance:**

The synthetic binder is amber-colored. The appearance of the pavement will be dominated by the color of the coarse aggregate used. If colored pavements are required, pigments can be mixed with the synthetic binder.

**Advantages:**

Color can be controlled with careful aggregate selection; Properties similar to hot-mix asphalt concrete.

**Limitations:**

Very new technology in United States; Cost will be more than HACP.

**Product Description:** Synthetic binder concrete pavement is composed of a carefully designed blend of coarse and fine aggregate and mineral filler with polymer modified synthetic binder. The synthetic binder is composed of a petroleum hydrocarbon resin that can replace asphalt cement in traditional HACP.



**Synthetic binder concrete pavement surfacing.**

Photo Source: FHWA-EFLHD



**Synthetic binder concrete pavement surfacing**

Photo Source: FHWA-EFLHD