Duromastic Hot Process Mastic Traffic Decking

Incorporating Duron Hot Applied Elastomeric Membrane

Duron

"DUROMASTIC" HOT PROCESS MASTIC TRAFFIC DECKING

Description

1. It is a two stage application comprising of a tough "DURON" hot process elastomeric membrane designed with more than sufficient elongation properties to bridge hair-line cracking, and tough enough to resist the heat and energy transmitted by car tires through the wearing surface.

   Over the membrane is placed a special lining of an asphalt saturated random woven glassfibre sheeting. This is fully bonded to the membrane, which in turn bonds to the ½" overlay of "DUROMASTIC" hot applied traffic decking.

   "DUROMASTIC" is a specially formulated grade of hot process mastic asphalt. An improved formula based on 30 years of successful Canadian service meeting the tough requirements of parking garages across Canada.

   The ½" wearing surface of "DUROMASTIC" is applied in the traditional method with the use of "wood hand floats", creating a smooth but non-skid sand textured surface which will give many years of maintenance free service.

Benefits

2. The combination of economy and durability has been the main feature of hot process mastic installations.

   There are projects in place that are still giving excellent service after almost thirty years of continual daily use. "DUROMASTIC" thickness may be built up and sloped to drains to create positive drainage. When, and if, maintenance on "DUROMASTIC" is ever required, it can be done very easily and effectively without inconvenience to the day to day parking operation.

   "DUROMASTIC" is totally resistant to road salts whether in crystal or liquid form.

   It is also unaffected by occasional spillage of gasoline.

   Continual contact of transmission and engine oil will only slightly soften the surface of "DUROMASTIC".

   No compaction or curing is needed for "DUROMASTIC". When the newly applied surface has cooled to ambient temperature, it may then be opened to traffic.

   The "DUROMASTIC" system may be installed year round. There is no need to wait for warm weather.

   The "DUROMASTIC" system may be installed for interior and exterior parking protection; entry and exit ramps; vehicle and pedestrian bridges, and in industry where chemical protection is desired.

Ramps

3. For internal ramps the DURON hot applied membrane is replaced with a layer of "DUROMASTIC", creating a two-coat application of "DUROMASTIC". This eliminates the risk of slippage and/or creeping of the system due to the sudden braking of vehicles on ramps. The surface while still hot shall be crimped or roughened with pre-coated chips. For external ramps with heating cables the following procedure is standard. (See dwg #1.)

1) The concrete ramp is blown clean by means of compressed air.
2) The concrete is primed with asphaltic base primer.
3) A first layer of ⅜" (9.5 mm) "DUROMASTIC" is applied to the concrete and allowed to cool.
4)The electrical contractor then installs the heating cables.
5) Over the cables is applied a second layer of ½" (12 mm) "DUROMASTIC" and while still hot a layer of diamond patterned flat steel mesh is pressed into the surface of the mastic.
6) When this layer has cooled a third and final layer of "DUROMASTIC" at a thickness of ¾" (19 mm) shall be applied.
7) While this mastic is still hot a broadcast of ¾" (19 mm) pre-coated granite chips shall be applied at the rate of not less than 1300 sq. ft. per ton (125 sq. m/910 kgs.)

8) The chips shall then be immediately rolled into the surface of the hot ''DUROMASTIC'' to create a permanent non-skid surface.
9) Prior to spreading the chips a 6" (150 mm) wide strip of plywood shall be placed against the concrete curb to create a smooth gutter.
10) All loose chips shall be removed from the ramp.

Expansion/Contraction Control

4. The elasticity and elongation properties of DURON elastomer membrane will accommodate most of the movement and hairline cracking of normal concrete. Sudden climatic and thermal temperature changes necessitate that large areas of ''DUROMASTIC'' to be saw cut. This treatment is mandatory adjacent to garage entrance and exit doors. All saw-cuts should be no wider than 5/8" (15 mm) and filled level.

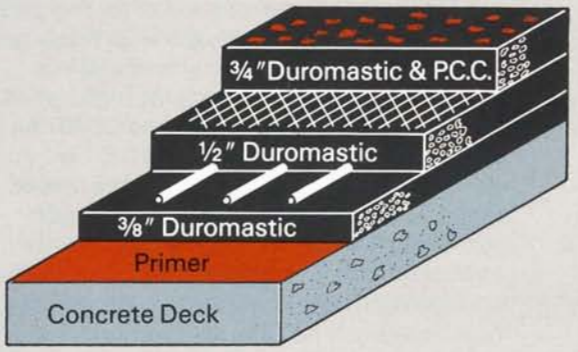
For structural expansion joints see dwg #3, back page.

Duromastic vs Asphalt Paving

5. What are the main differences between ''DUROMASTIC'' hot process mastic and regular hot mix paving? The main differences between ''DUROMASTIC'' and paving asphalt occur because of the method of mixing and the blending of selected asphalts with finely graded aggregates. Paving material is mixed in a pugmill or rotary drum at a fairly high speed. This allows the asphalt matrix to COAT the aggregates, while ''DUROMASTIC'' is manufactured in specially designed mastic asphalt cookers which are equipped with mixing blades rotating at 4-6 RPM. As the various graded fine aggregates are added to the asphalt matrix they become totally immersed into the asphalt and literally cooked for as long as 12 hours at 420 deg.F. In this way a dense voidless mastic is produced which is both impervious and impermeable.

The standard ''DUROMASTIC'' SYSTEM has a dead weight load of 7 lbs. per sq. ft. (32 kgs. per sq. m.)

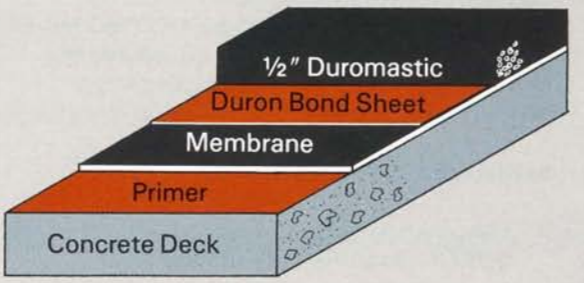
"Duromastic" External Ramp Treatment



Incorporating:
Pyrotenax Heating Cables
Re-inforcing Steel Mesh
Pre-coated Granite Chippings
Three Separate Layers of Duromastic

Dwg #1

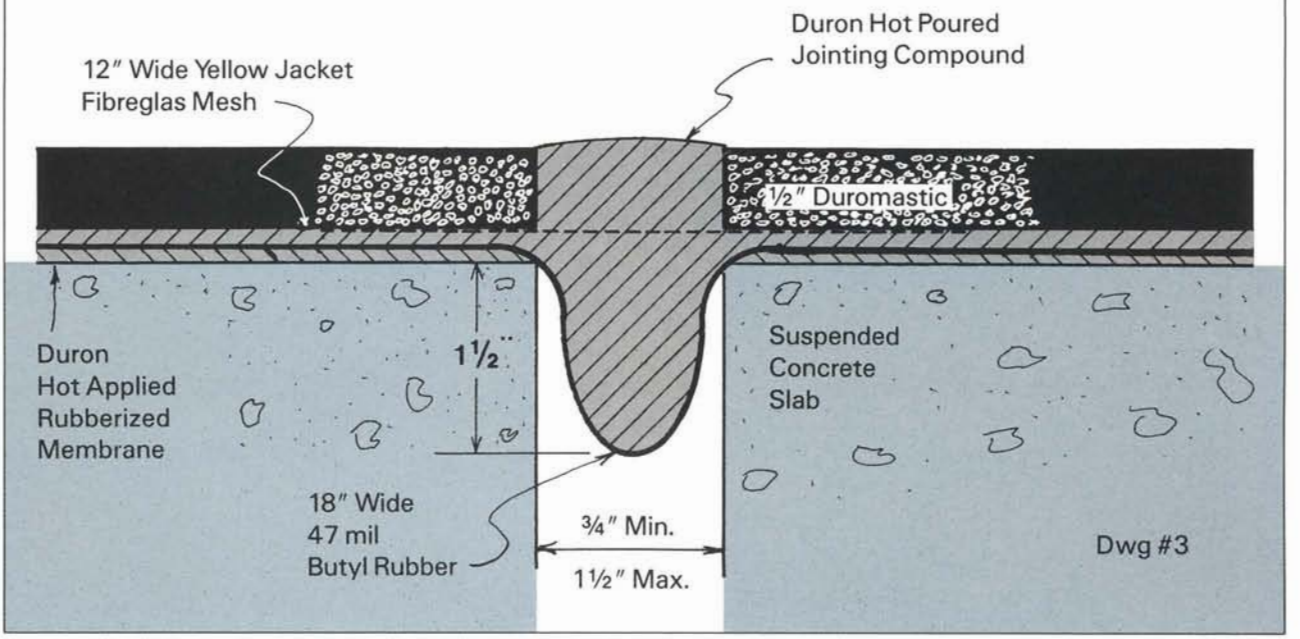
Standard "Duromastic" Traffic Topping System



Dwg #2

Incorporating Duron Hot Applied
Elastomeric Membrane
and Bond Sheet

Expansion Joint Detail



Dwg #3

Duron

Halifax **Ottawa** **Montreal** **Toronto**
Winnipeg **Calgary** **Edmonton** **Vancouver**