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## PRODUCT SPECIFICATIONS

**PRODUCT:** ASPHALT CEMENT

**GRADE:** MAC-15TR **PRODUCT CODE:** 13723

**DESCRIPTION:** A tire rubber modified asphalt containing not less than 15% whole ground

tire rubber for use in hot mixes to resist rutting and cracking. The product is smooth and homogeneous, and it mixes like a conventional/modified

asphalt.

**MEETS SPECIFICATIONS:** ASTM D6373, PG70-22

AASHTO M320, PG70-22

|                                      | ASTM   | AASHTO |           | TYPICAL               |
|--------------------------------------|--------|--------|-----------|-----------------------|
| TESTS                                | METHOD | METHOD | SPECS.    | ANALYSIS <sup>1</sup> |
| Original Asphalt:                    |        |        |           |                       |
| Tire Rubber Content, wt.%            |        |        | 15 min    | 15                    |
| Flash Point, C.O.C., °C              | D92    | T48    | 230 min   | 315                   |
| Specific Gravity, 77/77°F            | D70    | T228   |           | 1.028                 |
| Specific Gravity, 60/60°F            | D70    | T228   |           | 1.034                 |
| API Gravity, 60°F                    | D70    | T228   |           | 5.3                   |
| Softening Point, °C                  | D36    | T53    | 70 min    | 59                    |
| Elastic Recovery, 25°C, %            |        | T301   | 60 min    | 75                    |
| Penetration, 25°C (77°F), 100g, 5s   | D5     | T49    | 60 min    | 73                    |
| Penetration, 4°C (39.2°F), 200g, 60s | D5     | T49    | 20 min    | 24                    |
| Kinematic Viscosity, 135°C, cSt      | D2170  | T201   |           | 1427                  |
| Dynamic Shear, 70°C, G*/sinδ, kPa    | P246   | TP5    | 1.00 min  | 1.42                  |
| Rotational Viscosity, 135°C, Pa·s    | D4402  | T316   | 3 max     | 1.2                   |
| Residue from R.T.F.O. Oven Test:     | D2872  | T240   |           |                       |
| Kinematic Viscosity, 135°C, cSt      | D2170  | T201   |           | 1347                  |
| Dynamic Shear, 70°C, G*/sinδ, kPa    | P246   | T315   | 2.20 min  | 2.3                   |
| Mass Loss, %                         | D2872  | T240   | 1.00 max  | 0.82                  |
| Residue from P.A.V. Test @ 100°C:    | D6521  | R28    |           |                       |
| Dynamic Shear, 28°C, G*·sinδ, kPa    | P246   | T315   | 5000 max  | 3154                  |
| Creep Stiffness, -12°C, S, MPa       | D6648  | T313   | 300 max   | 168                   |
| m-Value, -12°C                       | D6648  | T313   | 0.300 min | 0.343                 |

<sup>&</sup>lt;sup>1</sup>Values shown as typicals may, at times, be superseded by results which are current at a particular time.

**AVAILABILITY:** Readily Available, All Locations

**DOT SHIPPING NAME:** UN3257, Elevated temperature liquid, n.o.s., 9, III

**DOT PLACARD:** Hot, 3257

**RELEASED:** 02-12-2002