

Name : BITUMEN 6070

In the past, the penetration index was defined based on the assumption that thermal sensitivity in the bitumen used in road construction was zero. Bitumen is a thermoplastic material, meaning that it becomes pliable or moldable above a specific temperature and returns to a solid state upon cooling. Penetration-grade bitumen is mainly used in road surfacing. Bitumen with lower penetration grade is used in the regions with warm climate while higher penetration grade is used in colder weather. Penetration rate bitumen is graded based on penetration and softening point tests. This table describes the physical properties of penetration-grade bitumen based on European standards. Penetration-grade bitumen is mainly used in road construction. During the last two decades of the 20th century, most road construction projects showed inclination for solid bitumen which results in more effective asphalt.

| EXPERIMENT                     |           |
|--------------------------------|-----------|
| Density                        | 06/1-01/1 |
| IN PENETRATION 10mm, 25°C      | 60-70     |
| SOFT POINT °C                  | 49-56     |
| TENSILE STRENGTH at 25 °C cm   | 100 min   |
| IGNITION POINT °C              | 250 min   |
| SOLUBILITY in DISULFIDE wt%    | 5/99      |
| SPOT TEST                      | Negative  |
| WEIGHT LOSS DUE TO HEAT        | 2 /0 Max  |
| THE EFFECT OF DIFFUSION O HEAT | 20 Max    |