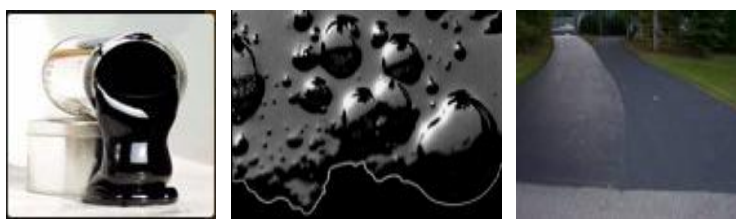


Asphalt & Bitumen Road construction

Natural Asphalt , Natural Bitumen Grades

Modifier for hot mix binders to achieve broader Useful Temperature Interval (UTI) and improve high temperature properties of bitumen. CH-108R and Ch-110K also Ch109P was developed for use in conjunction with, or as a substitute for, polymers in asphalt.



Gilsonite CH-108R

Typical Properties

| | |
|------------------------------------|------------------------|
| Softening Point (ASTM E28-92) | 195-215°C 383-420°F |
| Ash (ASTM D271-70M) | 12-16% |
| Moisture | <1.5% |
| Penetration (25°C, 100 gm, 5 sec.) | 0-2 |
| Color in Mass | Black |
| Flash Point (COC) | 316°C; 600°F |
| Nitrogen | 3% Typical |
| Sulfur | 3-6% |
| Specific Gravity | 1.04 |

Typical Particle Sizing (ASTM E11-70)

| | % Retained (Cumulative) | | |
|------------|-------------------------|------|------|
| | Pulverized | | |
| | 30-40 | 100 | 200 |
| + 10 mesh | -- | --- | --- |
| + 30 mesh | <=5 | --- | --- |
| + 40 mesh | <=18 | --- | --- |
| + 100 mesh | --- | <=18 | --- |
| + 200 mesh | --- | --- | <=18 |

Gilsonite CH-109P

Typical Properties

| | |
|------------------------------------|------------------------|
| Softening Point (ASTM E28-92) | 185-205°C 365-401°F |
| Ash (ASTM D271-70M) | <10% |
| Moisture | <1.5% |
| Penetration (25°C, 100 gm, 5 sec.) | 0-2 |
| Color in Mass | Black |
| Flash Point (COC) | 316°C; 600°F |
| Nitrogen | 3% Typical |
| Sulfur | 3-6% |
| Specific Gravity | 1.04 |

Gilsonite CH-110 A

Typical Properties

| | |
|------------------------------------|------------------------|
| Softening Point (ASTM E28-92) | 165-185°C 329-365°F |
| Ash (ASTM D271-70M) | <3% 5% Guaranteed |
| Moisture | <1.5% |
| Penetration (25°C, 100 gm, 5 sec.) | 0-2 |
| Color in Mass | Black |
| Flash Point (COC) | 316°C; 600°F |
| Solubility | >95% |
| Nitrogen | 3% Typical |
| Sulfur | 3-6% |
| Specific Gravity | 1.04 |