

M Chemicals

BASE OILS / GROUP I / SN 150

SN-150 is high quality base oil obtained by modern refining process. Have wide range of applications and viscosities.

SN 150

| Property | Unit | Test Method | Specification |
|------------------------------|--------------------------|-------------|---------------|
| Appearance | - | Visual | C&B |
| Color | - | ASTM D-1500 | Max 1 |
| Density at 15°C | kg/m ³ | ASTM D-4052 | 880 |
| Kinematic Viscosity at 100°C | mm ² /s (cSt) | ASTM D-445 | 4.7-5.7 |
| Viscosity index | - | ASTM D-2270 | Min 90 |
| Flash point | °C | ASTM D-92 | Min 200 |
| Pour point | °C | ASTM D-97 | Max -6 |
| Noack at 250°C | wt% | ASTM D5-800 | Max 15 |



M Chemicals

BASE OILS / GROUP / 180N

Characteristics: Flammable Liquid

Application: Lubricants Production

180N

| Properties | Test Method | Test Condition | Unit | Value |
|--------------------------|-------------|----------------|-------------------|-----------|
| Density | ASTM D 1298 | @15°C | km/m ³ | 886 |
| Color | ASTM D 1500 | | - | 2 max |
| Flash Point | ASTM D 92 | | Max 300 | 210 min |
| Pour Point | ASTM D 97 | | Max -6 | -6 min |
| Evaporation Loss (NOACK) | ASTM D 5800 | | wt% | 14.8-15.8 |
| Kinematic Viscosity | ASTM D 445 | @100°C | cs.t | 5.5-5.9 |
| Kinematic Viscosity | ASTM D 445 | @40°C | cs.t | 33-38 |
| Viscosity Index (VI) | ASTM D 2270 | | - | min 95 |
| Total Sulfur | ASTM D 5453 | | ppmwt | Max 300 |
| Total Nitrogen | ASTM D 4629 | | ppmwt | 8 |
| Cold Cranking Simulator | ASTM D 5293 | @-15°C | mPa.S | 1380 |
| Cold Cranking Simulator | ASTM D 5293 | @-20°C | mPa.S | 2330 |
| Water Content | ASTM D 6304 | | ppmwt | 39 |
| Saturate Content | ASTM D 7419 | | wt% | 91.4 |
| Saturate Content | ASTM D 7419 | | wt% | 8.6 |



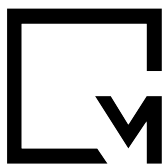
M Chemicals

BASE OILS/ GROUP I / SN 350

SN-350 is high quality base oil obtained by modern refining process. Have wide range of applications and viscosities.

SN 350

| Test | Method | Typical Properties |
|----------------------------------|-------------|--------------------|
| Kinematic Viscosity (40°C)[cSt] | ASTM D445 | 60,0-90,0 |
| Kinematic Viscosity (100°C)[cSt] | ASTM D445 | 7,5-9,5 |
| Viscosity Index | ASTM D2270 | 85-108 |
| Flash Point, °C | ASTM D92 | 210-235 |
| Pour Point, °C | ASTM D97 | Max. -7 |
| Color (ASTM) | ASTM D1500 | 1,5-3,5 |
| Water, ppm | ASTM D 6304 | Max. 100 |
| Total Acid Number, mg KOH/g | ASTM D 644 | Max. 0,1 |
| Carbon Dispersion | | |
| % Aromatic | ASTM D3228 | 4,9 |
| % Naphthenic | ASTM D3228 | 29,1 |
| % Paraffinic | ASTM D3238 | 66,0 |



M Chemicals

BASE OILS / GROUP I / SN 500

SN-500 is high quality base oil obtained by modern refining process. Have wide range of applications and viscosities.

SN 500

| Properties | Unit | Test Method | Specification | Typical Result |
|----------------------------------|--------------------------|-------------|---------------|----------------|
| Appearance | - | Visual | C&B | C&B |
| Color | - | ASTM D1500 | Max 2 | 1.8 |
| Density at 15°C | kg/m ³ | ASTM D4052 | - | 893 |
| Kinematic Viscosity @ 40°C, cSt | mm ² /s (cSt) | ASTM D445 | - | 108 |
| Kinematic Viscosity @ 100°C, cSt | mm ² /s (cSt) | ASTM D445 | Min 10.8 | 10.9 |
| Viscosity index | - | ASTM D2270 | Min 87 | 88 |
| Flash point | °C | ASTM D92 | Min 235 | 245 |
| Pour point | °C | ASTM D97 | Max -3 | -4 |
| Noack at 250°C | wt% | ASTM D5800 | Max 5 | 3.5 |
| Sulfur | wt% | ASTM D4951 | - | 1.2 |