



## TERESSTIC SERIES

Mobil Industrial, United States

Circulating Oils

### Product Description

TERESSTIC is the brand name for a line of long-service-life lubricating oils, TERESSTIC oils are formulated with carefully selected base stocks and highly effective additives, including oxidation and rust inhibitors and anti-foam agents.

The TERESSTIC line of circulating oils consists of nine viscosity grades. Eight of these grades are blended to viscosity values that conform to the International Organization for Standardization (ISO) viscosity classification system. TERESSTIC 77 is an intermediate grade between ISO viscosity grades 68 and 100.

### Features and Benefits

**Demulsibility** – As water is perhaps the major menace to effective lubrication, it is essential that industrial circulating oils exhibit good demulsibility. All TERESSTIC grades shed water readily and are highly resistant to emulsification. These properties promote water separation in the reservoir, thus keeping it from recirculating with the oil. TERESSTIC oils (ISO VGs 32 - 100) typically provide separation times of 15 minutes or less on the standard ASTM D 1401 Demulsibility Test.

**Foam Resistance and Air Release** – The trend toward shorter residence time for oils in reservoirs makes it essential that industrial circulating oils resist foaming and readily eliminate entrained air. All TERESSTIC grades contain foam inhibitors.

**Rust and Corrosion Protection** – TERESSTIC oils are formulated with rust inhibitors. Grades 32 through 100 pass both distilled and salt water versions of ASTM D 665. The heavier grades are tested in the distilled water version only. The TERESSTIC line also passes the ASTM copper strip corrosion test, assuring protection of copper and bronze.

In summary, TERESSTIC circulating oils offer the following features and benefits:

- Excellent demulsibility
- Well balanced foam resistance and air release
- Rust- and oxidation-inhibited
- Long service life
- Excellent high-temperature stability
- For mild duty turbines, hydraulic systems, circulating systems, gear cases, heat transfer systems, and reciprocating natural gas compressors
- Complete range of ISO viscosity grades for all requirements

### Applications

TERESSTIC oils are recommended for applications that require dependable lubrication for extended service periods – often for years. They effectively resist high temperatures, prevent rust, and shed entrained water and air. TERESSTIC oils give outstanding performance in hydraulic systems, circulating lubrication systems, gear cases, bearings, reciprocating natural gas compressors, and other industrial units, where a RandO lubricant is required, for which long trouble-free service is required.

Contamination of TERESSTIC oils with other products such as detergent motor oils may substantially impair their quality and could lead to operational problems such as foaming, filter plugging and sludge formation

### Typical Properties

| TERESSTIC | 32 | 46 | 68 | 77 | 100 | 150 | 220 | 320 | 460 |
|-----------|----|----|----|----|-----|-----|-----|-----|-----|
|-----------|----|----|----|----|-----|-----|-----|-----|-----|

| TERESSTIC  | 32      | 46      | 68      | 77      | 100     | 150     | 220     | 320     | 460     |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| ISO viscosity grade                                | 32      | 46      | 68      | -       | 100     | 150     | 220     | 320     | 460     |
| Viscosity, ASTM D 445                              |         |         |         |         |         |         |         |         |         |
| cSt @ 40°C   | 32.0    | 46.0    | 68.0    | 77.0    | 100     | 150     | 220     | 320     | 460     |
| cSt @ 100°C  | 5.3     | 6.6     | 8.5     | 9.3     | 11.1    | 14.5    | 18.8    | 24.0    | 30.4    |
| Viscosity Index, ASTM D 2270                       | 96      | 95      | 95      | 95      | 95      | 95      | 95      | 95      | 95      |
| Pour point, °C (°F), ASTM D 97                     | -21(-6) | -12(10) | -12(10) | -12(10) | -12(10) | -12(10) | -12(10) | -12(10) | -12(10) |
| Emulsion, Time to 3 ml Emulsion, 54°C, ASTM D 1401 | 15      | 15      | 20      | 20      | -       | -       | -       | -       | -       |
| Emulsion, Time to 3 ml Emulsion, 82°C, ASTM D 1401 | -       | -       | -       | -       | 15      | 30      | 30      | 30      | 30      |
| Copper Strip Corrosion, 3 hours, 100°C, ASTM D 130 | 1B      | 1B      | 1B      | 1B      | 1B      | 1B      | 1B      | 1B      | 1B      |
| Neutralization Number, ASTM D 974                  | 0.06    | 0.06    | 0.06    | 0.06    | 0.06    | 0.20    | 0.06    | 0.06    | 0.06    |
| Rust Prevention, ASTM D 665A                       | Pass    | Pass    | Pass    | Pass    | Pass    | Pass    | Pass    | Pass    | Pass    |
| Rust Prevention, ASTM D 665B                       | Pass    | Pass    | Pass    | Pass    | Pass    | -       | -       | -       | -       |

## Health and Safety

Oils and greases in contact with skin can result in plugging of sweat glands and hair follicles or defatting of the skin. This may lead to skin irritation or dermatitis. Accordingly, good personal hygiene should always be practiced. Oil, greases, and other foreign materials should be removed from the skin promptly. TERESSTIC oils are readily removed from the skin by waterless hand cleaners, followed by washing with soap, warm water and a skin brush. Soiled clothing should not remain in contact with the skin. TERESSTIC can be removed from clothing by dry cleaning with solvents or by washing with a laundry detergent. If TERESSTIC comes in contact with the eyes, wash the eyes with fresh water until the irritation subsides.

**WARNING:** "Empty" containers retain residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks, or other sources of ignition; they may explode and cause injury or death. Do not attempt to clean since residue is difficult to remove, and even a trace of remaining material constitutes an explosive hazard. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

Additional important health and safety information on this product can be found in the Material Safety Data Sheet which is available online at [www.exxon.com](http://www.exxon.com) or by contacting Exxon Branded Lubricants, ExxonMobil Lubricants and Petroleum Specialties Company, North America Technical Services - MSDS, 3225 Gallows Road, Fairfax, VA 22037.

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Exxon Mobil Corporation  
 22777 Springwoods Village Parkway  
 Spring TX 77389  
 1-800-ASK MOBIL (275-6624)

Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations

that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local ExxonMobil contact or visit [www.exxonmobil.com](http://www.exxonmobil.com)

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