



# PRODUCT DATA SHEET

## ANDEROL 5460 XEP

### Synthetic Gear and Bearing Lubricant



#### ADVANTAGES/BENEFITS

- Excellent oxidation and thermal stability
- Wide operating temperature range
- Lower maintenance costs
- Excellent load carrying ability
- Extended lubricant life
- Improved cleanliness
- Excellent anti wear & EP properties
- Very good rust and copper corrosion prevention
- Compatible with petroleum oils, therefore allowing minimal effort to changeover

#### COMPATIBILITY

The following seals, paints and plastics are recommended for use in contact with **ANDEROL**® synthetic lubricants. Materials not recommended are also shown. For more information on other materials see our 'Compatibility Guide'.

#### RECOMMENDED:

Viton, High Nitrile Buna N, Teflon, Epoxy Paint, Oil-Resistant Alkyd, Nylon, Delrin, Celcon, PBT

#### NOT RECOMMENDED:

Neoprene, SBR Rubber, Low Nitrile Buna N, Acrylic Paint, Lacquer, Polystyrene, PVC, ABS

#### APPLICATION

- Particularly suited for gear applications exposed to extreme service conditions
- All types of enclosed gear drives
- Bearings, including plain rolling elements and antifriction types
- Enclosed gear cases and speed reducers

**ANDEROL 5460 XEP** is a synthetic based, high performing gear lubricant to be used in industrial equipment. It was designed to withstand heavy loads and severe conditions resulting in very good micro pitting resistance. The PAO based product gives superior advantages to the mineral oil based products, especially with regards to low pour point, oxidation stability and energy consumption.

**ANDEROL 5000 XEP** range is available in the grades ISO VG 150, 220, 320, 460, 680 and 1000.

**ANDEROL 5460 XEP** meets or exceeds the requirements of:

ANSI/AGMA 9005 (table 3)

AISE 224 (formerly USS 224)

DIN 51.517

Cincinnati P-35

| PROPERTIES                          | TEST METHOD     | ANDEROL 5460 XEP    |
|-------------------------------------|-----------------|---------------------|
| ISO VG                              | ASTM D-2422     | 460                 |
| Appearance @ 20°C                   | visual          | Clear Yellow Liquid |
| Viscosity @ 40°C, cSt               | ASTM D-445      | 420.2               |
| Viscosity @ 100°C, cSt              | ASTM D-445      | 42.4                |
| Viscosity Index                     | ASTM D-2270     | 154                 |
| Density @ 15°C, kg/l                | ASTM D-1298     | 0.908               |
| Total Acid Number, mg KOH/g         | ASTM D-664      | 0.5                 |
| Flash Point, °C                     | ASTM D-92       | 250                 |
| Pour Point, °C                      | ASTM D-97       | -42                 |
| Foam, Sequence I, II ml             | ASTM-892        | 20                  |
| Micro pitting Resistance Test       | FVA, 54/11      | High                |
| FZG Gear test, Pass Stage           | DIN/ISO 14635-1 | 14                  |
| 4-Ball Wear, 1200 rpm, 40 kg, 75 °C | ASTM D-4172     | 0.5                 |
| 4-Ball Weld, kg                     | ASTM D-2783     | 250                 |

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#### APPROVALS

- Rossi Motoriduttori
- Hansen Industrial Transmissions (Sumitomo) "Acceptance of Lubricating Oils for Industrial Gear Units", BUI-TEC-2009-4-001
- Maag Gear (FLSmidth) "Recommended Lubricants for Gearboxes and Toothed couplings", Doc No 60000208
- Kumera Drives

| PROPERTIES   | TEST METHOD     | ANDEROL 5460 XEP |
|--|-----------------|------------------|
| FE-8 Industrial Gear requirements                                | DIN 51819 T1-T3 |                  |
| Bearing Lubrication Test J1 (FAG Step I)                         |                 | Pass             |
| Bearing Lubrication Test J2 (FAG Step II)                        |                 | Pass             |
| FAG Wind Power requirements                                      |                 |                  |
| Wind power Level 3 Test L11 (FAG Step III)                       |                 | Pass             |
| Oil suitability for Wind Energy Plant Applications (FAG Step IV) |                 | Pass             |

FOR MORE INFORMATION PLEASE REFER TO THE RELEVANT MATERIAL SAFETY DATA SHEET

#### REGISTRATIONS

