

# Starplex® EP 3

# High performance long-service multi-purpose grease

# Product description

Starplex EP 3 is a high performance long-service multipurpose lead-free grease, formulated for long-term service in roller-and ball-bearing applications, operating at high temperatures and under high loads.

With a wide operating temperature range, Starplex EP 3 is formulated with mineral base stocks with temperature resistant lithium complex soap thickener, combined with EP additives and wear, corrosion and oxidation inhibitors. Starplex EP 3 offers good mechanical stability and is suited to bearing lubrication under conditions where strong vibrations are present.

### Customer benefits

- Formulated to promote long-term lubrication performance in wide temperature conditions
- Mechanical stability helps maintain lubrication performance in bearings which are subject to strong vibrations
- Assists long-term corrosion protection where moisture, water or aggressive atmospheres are present
- Good sealing characteristics help protect lubrication points from dust, dirt and water
- Reliable thermal performance contributes robust protection under high temperature conditions
- High pressure load capacity promotes long-term wear resistance
- Tough, adhesive oil film performance aids long-term component protection

### Product highlights

- · Long-term lubrication protection
- · Robust thermal resistance
- · Mechanically stable formulation
- Promotes long-term wear, corrosion and oxidation protection
- · Helps protect against dust, dirt and water ingress

Selected specification standards include:

DIN ISO

## **Applications**

 Starplex EP 3 grease is used for lubricating machines and components which are subjected to high thermal and mechanical loads over a long service life.

#### Typical applications are:

- Automobile wheel bearings and generators
- Clutch thrust bearings, brake cylinders, fan bearings
- Electric motors, kiln cars, rollers in drying plants, paper machines, washing and dish washing machines
- Special do-it-yourself machines and household appliances
- Starplex EP 3 grease has been tested in applications involving extreme pressures, vibrations and impact stress, wet conditions, dust, and in the presence of plastic seals
- This product largely covers the applications of conventional lithium, sodium and calcium greases, as well as of aluminium and calcium complex greases.
- Starplex EP 3 can substitute for a large number of different grease types, therefore reducing the number of greases that must be kept in storage

# Approvals, performance and recommendations

#### **Performance**

If a MAN approved wheel bearing grease is needed, use Hytex EP 2 LF (NLGI 2.5)

|      | DIN 51 502 | ISO 6743-09  | Operating temperature  |
|------|------------|--------------|--|
| EP 3 | KP 3P-20   | ISO-L-XBDEB3 | -20 °C up to<br>150 °C with<br>frequent<br>re-lubrication<br>up to +200 °C |

| Typical test data                              |              |                 |  |  |
|--|--------------|-----------------|--|--|
| Test   | Test methods | Results         |  |  |
| NLGI Grade                                     |              | 3               |  |  |
| Product Code                                   |              | 35976           |  |  |
| Colour   | -            | Brown           |  |  |
| Texture  | -            | Smooth          |  |  |
| Soap type                                      | -            | Lithium Complex |  |  |
| Penetration worked, mm/10                      | DIN ISO 2137 | 220-250         |  |  |
| Dropping Point, °C                             | ISO 2176     | >250            |  |  |
| Base oil type                                  | -            | Mineral         |  |  |
| Base oil viscosity at 40°C, mm <sup>2</sup> /s | DIN 51 562   | 115             |  |  |
| Copper corrosion, 24h/100 °C                   | DIN 51 811   | 1               |  |  |
| Emcor distilled water                          | DIN 51 802   | 0/0             |  |  |
| Four ball weld load, N                         | DIN 51 350/4 | 2800            |  |  |
| Four Ball Wear, mm                             | DIN 51 350   | 0.3             |  |  |
| Water resistance static                        | DIN 51 807/1 | 1-90            |  |  |

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This supersedes all previous editions and information contained in them.

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