



A brand of **TOTAL**

## ELF PERFO 3F 15W-40/20W-50

***A detergent engine oil for high performance diesel supercharged or naturally aspirated. It can also be used in petrol engines***

### APPLICATIONS

**For turbo-charged diesel engines working under severe conditions**

- Recommended for heavy duty turbo-charged diesel engines, with or without intercooler, incorporated in industrial transport vehicles, construction equipment, buses, vans and pickup under the severest working conditions.
- Used in diesel engines, including those naturally aspirated.
- Best choice for mixed fleets (diesel and gasoline engines).

### APPROVALS

**International Specifications**

**ELF PERFO 3F 15W-40**

- API CF-4/SJ
- ACEA E2

**ELF PERFO 3F 20W-50**

- API CF-4/SJ

**OEMS' Specifications**

**ELF PERFO 3F 15W-40**

- MB-Approval 228.1
- MAN 271
- VOLVO VDS

**ELF PERFO 3F 20W-50**

- Meet the requirements of MB-Approval 228.1

### PERFORMANCES AND CUSTOMER BENEFITS

- Increased detergency in order to limit deposit formation on hot engine parts
- Strong dispersancy to avoid coalescence of combustion products
- High Total Base Number, giving full engine protection during the whole service period.
- Excellent anti-corrosion and anti-wear properties
- High thermal and oxidation stability
- Protection against bore polishing
- Low temperature fluidity which ensures easy starting and pumpability in winter

### PHYSICAL AND CHEMICAL CHARACTERISTICS

| ELF PERFO 3F            |                    | Method     | 15W-40 | 20W-50 |
|-------------------------|--------------------|------------|--------|--------|
| Volumetric mass at 15°C | kg/m <sup>3</sup>  | ASTM D1298 | 887    | 895    |
| Viscosity at 40°C       | mm <sup>2</sup> /s | ASTM D445  | 110    | 170.8  |
| Viscosity at 100°C      | mm <sup>2</sup> /s | ASTM D445  | 13.90  | 18     |
| Viscosity Index         | --                 | ASTM D2270 | 131    | 117    |
| Flash point Cleveland   | °C                 | ASTM D92   | 225    | >200   |
| Pour Point              | °C                 | ASTM D97   | -30    | -30    |
| Total Base Number       | MgKOH/g            | ASTM D2896 | 9.2    | 9.2    |

*The features mentioned above are average values obtained with some variability in production and do not constitute a specification.*