

Fuzhou Topda New Material Co., Ltd

福州泰普达新材料有限公司

PFPE Vacuum Pump Oils PFPE Base Oil For Grease

**PFPE High Temp & High Vacuum Lubricating Oils** 

**PFPE Polymer Additive** 

Fluorinated Oil For Cosmetics

# PFPE VACUUM PUMP OILS

#### PFPE Vacuum Pump Oils Topda K-L Grades

PFPE Vacuum Pump Oils Topda K-L Grades are perfluorinated polyether inert fluids with only carbon (C), fluorine(F), and oxygen(O) atoms on the molecular chain. They are ideal for use in vacuum pumps as sealing & lubricating fluid and working fluids especially in the systems which are exposed to strongly oxidative substances like oxygen, ozone or nitric oxides as well as highly reactive substances like halogens and hydrogen halides. Because of their high stability and safety, especially the high reliability of working under particularly harsh conditions, no working medium can be comparable to perfluoropolyether oil in such harsh environment.

| Product Code | Average<br>Molecular Weight,<br>a.m.u. | Viscosity at<br>20°C, cSt | Viscosity<br>Index | Vapor<br>Pressure<br>at 25°C, , torr | Vapor<br>Pressure<br>at 100°C, , torr | Pour<br>Point, ℃ | Ultimate total pressure, torr | Surface<br>Tension at<br>20°C,<br>dyne/cm |
|--------------|--|---------------------------|--------------------|--------------------------------------|---------------------------------------|------------------|-------------------------------|---|
| K-L 606      | 1,800                                  | 64                        | 71                 | 8×10 <sup>-7</sup>                   | 3×10 <sup>-3</sup>                    | -50              | 1.7×10 <sup>-3</sup>          | 19  |
| K-L 1406     | 2,500                                  | 148                       | 97                 | 1×10 <sup>-7</sup>                   | 2×10-4                                | -45              | 1.4×10 <sup>-3</sup>          | 19  |
| K-L 1606     | 2,700                                  | 168                       | 110                | 2×10-6                               | 2×10-4                                | -45              | 1.3×10 <sup>-3</sup>          | 19  |
| K-L 2506     | 3,300                                  | 276                       | 113                | 6×10 <sup>-8</sup>                   | 6×10 <sup>-5</sup>                    | -35              | 1.1×10 <sup>-3</sup>          | 19  |

#### PFPE Vacuum Pump Oils Topda K-H Grades

PFPE Vacuum Pump Oil Topda K-H Grades are suggested for applications requiring the highest quality vacuum such as in scanning electron and transmission microscopes, mass spectrometers, particle accelerators, ion implantation, plasma and vapor deposition processes. In addition, it is suggested for pumps handling reactive gases such as UF6, F2, oxygen, ozone and tritium, as the fluid can be used in direct contact with these gases without reaction and fluid degradation.



| Product Code | Average           | Viscosity at | Viscosity | Vapor              | Pour             | Refractive                 | Specific     | Working         |
|--------------|-------------------|--------------|-----------|--------------------|------------------|----------------------------|--------------|-----------------|
|              | Molecular Weight, | 20°C, cSt    | Index     | Pressure           | <b>Point</b> , ℃ | Index, (nD <sup>20</sup> ) | Heat at 20°C | Temperature, °C |
|              | a.m.u.            |              |           | at 25°C, , torr    |                  |                            |              |                 |
| K-H 1808     | 2,800             | 185          | 120       | 8×10 <sup>-7</sup> | -45              | 1.300                      | 0.24         | -45~190         |
| K-H 2509     | 3,400             | 285          | 126       | 1×10 <sup>-7</sup> | -41              | 1.301                      | 0.24         | -40~195         |
| K-H 4009     | 4,400             | 474          | 129       | 2×10 <sup>-6</sup> | -38              | 1.304                      | 0.24         | -38~200         |
| KH-14013     | 7,600             | 1400         | 140       | 6×10 <sup>-8</sup> | -30              | 1.304                      | 0.24         | -30~280         |



# PFPE BASE OIL FOR GREASE

PFPE Base Oil For Grease B Grades not only maintain the excellent properties of perfluoropolyether fluids, but also has many unique properties, such as excellent high temperature stability, good low temperature properties, low evaporative loss and high viscosity index. They are widely used as base oil to formulate PFPE greases for specific appliations to meet the most challenging demands.



| Product Code | Viscosity at<br>20°C, cSt | Viscosity at<br>40°C, cSt | Viscosity at<br>100°C, cSt | Viscosity<br>Index | Pour<br>Point,℃ | Surface<br>tension, 20°C<br>dyne/cm | Evaporation<br>weight loss<br>at 120 °C, 22 hr, % | Evaporation<br>weight loss<br>at 204 °C, 22 hr, % |
|--------------|---------------------------|---------------------------|----------------------------|--------------------|-----------------|-------------------------------------|---|---|
| B-40         | 38                        | 15                        | 3                          | 29                 | -63             | 20                                  | 35  | -   |
| B-150        | 142                       | 48                        | 7                          | 100                | -60             | 21                                  | 10  | -   |
| B-260        | 260                       | 83                        | 11                         | 116                | -42             | 22                                  | 3   | -   |
| B-520        | 522                       | 160                       | 18                         | 124                | -36             | 22                                  | 1   | 7   |
| B-800        | 822                       | 243                       | 25                         | 134                | -36             | 23                                  | 1   | 3   |
| B-1200       | 1,200                     | 345                       | 33                         | 136                | -33             | 24                                  | -   | 1   |
| B-1800       | 1,820                     | 510                       | 46                         | 148                | -20             | 24                                  | -   | 0.8   |
| B-2600       | 2,600                     | 750                       | 65                         | 157                | -15             | 24                                  | -   | 0.6   |
| B-3500       | 3,500                     | 1,000                     | 88                         | 171                | -5              | 24                                  | -   | 0.5   |

# PFPE HIGH TEMP & HIGH VACUUM LUBRICATING OILS

PFPE High Temperature & Ultra-high Vacuum Lubricating Oils S Grades are perfluorinated polyether inert fluids. They are especially developed for use in high temperature and ultra-high vacuum environments as lubricating Oils.

#### Features

- Excellent resistance to high temperature and ultra-high vacuum
- High viscosity index
- Extreamly low evaporative loss
- Excellent chemical & solvent resistance
- Good lubricity
- Excellent compatibility with metals, plastics, elastomers



| Product Code | Viscosity at<br>20°C, cSt | Viscosity at<br>40°C, cSt | Viscosity at<br>100°C, cSt | Viscosity<br>Index | Evaporation weight<br>loss at 204 °C, 22<br>hr, % |     | Working<br>Temperature, °C |
|--------------|---------------------------|---------------------------|----------------------------|--------------------|---|-----|----------------------------|
| S-2500       | 2,500                     | 740                       | 64                         | 158                | <0.75   | -24 | -24~305                    |
| S-3000       | 3,000                     | 860                       | 70                         | 161                | < 0.10  | -21 | -21~315                    |
| S-3500       | 3,500                     | 995                       | 84                         | 166                | <0.10   | -18 | -18~325                    |

## PFPE POLYMER ADDITIVE

Topda P Grades are fully fluorinated oils especially developed for use as polymer additives and can be compounded with thermoplastic and elastomeric materials to enhance the final properties of the host materials without changing their mechanical properties, color, etc.

#### Features

- Excellent thermal stability and chemical resistance
- Non-flammable in any circumstances
- Outstanding radiation resistance and weather resistance
- Good Water/oil and stain repellency
- Good compatibility with plastics and rubbers
- Reduce the coefficient of friction
- Improve wear and abrasion resistance
- Improve the surface smoothness and gloss
- Extend the working life of the polymers



| Product Code | Viscosity at 48℃, cSt | Volatility at 121 °C,<br>22 hr, % | Refractive Index, (nD <sup>25</sup> ) | Pour Point, ℃ | Surface tension, 20°C dyne/cm |
|--------------|-----------------------|-----------------------------------|---------------------------------------|---------------|-------------------------------|
| P-10         | 8                     | -                                 | 1.300                                 | <-70          | 18                            |
| P-100        | 106                   | -                                 | 1.300                                 | <-36          | 18                            |
| P-110        | 112                   | <1                                | 1.300                                 | <-36          | 18                            |

# FLUORINATED OIL FOR COSMETICS

Topda C Grades are fluorinated fluids which are especially developed to be used as additives in high-end cosmetics and skin care products, it has features of good waterproof performance, no damage to the skin and no pores clog.

#### Features

- Good Waterproof performance
- Low surface tension
- Good lubricity
- No damage to the skin
- Not clog pores
- Non-toxic
- Environmental friendly



| Product Code | Average molecular weight, | Viscosity at 20 ℃, | Refractive                 | Surface tension, at | Interfacial tension at 20°C, |
|--------------|---------------------------|--------------------|----------------------------|---------------------|------------------------------|
|              | a.m.u                     | cSt                | Index, (nD <sup>25</sup> ) | 20°C, dyne/cm       | dyne/cm                      |
| C-40         | 1,800                     | 40                 | 1.293                      | 22                  | 55                           |
| C-250        | 3,300                     | 250                | 1.299                      | 22                  | 55                           |
| C-1250       | 6,500                     | 1250               | 1.302                      | 22                  | 55                           |