

## Thixotropic Gel for Telecommunication Cables



### Product Application

- The chemical properties of the **Info-gel K 551** compound remain stable for a very long period if kept in temperature ranges between  $-50\text{ }^{\circ}\text{C}$  up to  $+85\text{ }^{\circ}\text{C}$ ; short exposures to temperatures up to  $300\text{ }^{\circ}\text{C}$  will not affect them.
- Cables manufactured with **Info-gel K 551** will show an excellent balance of properties and will pass both attenuation test at low temperature and oil separation and drip test at high temperature.
- The compound does not affect thoroughly dried or cured inks generally used for optical fibre coating.
- No impairment of splicing techniques.

### General Description

**Info-gel K 551** is a fully synthetic Thixotropic compound suitable for filling and/or flooding all the most common types of optical fibre cables such as loose tube, slotted core, ribbon, etc.

### Processing

Gel may be pumped with the usual metering pump devices, at room temperature (cold filling technology). Constant quality ensures high-speed, trouble-free production.

### Compatibilities

|                   |  |
|-------------------|--|
| O.F. Coating      | Compatible with O.F. coatings (UV Acrylate) commonly used in optical fiber cables        |
| PET, PBT, PA (12) | Compatible with thermoplastic materials commonly used in optical fiber cables            |
| LDPE, HDPE        | To be checked by the cable manufacturer; results are greatly influenced by material type |



## Typical Product Characteristics – Nominal Values

| Properties                 | Unit              | Values             | Test Method  |
|----------------------------|-------------------|--------------------|--|
| Density (20 °C)            | g/cm <sup>3</sup> | 0.84 ± 0.02        | DIN 51757, ASTM D 1481                                   |
| Insulation Index           | Ohm. Cm           | > 10 <sup>16</sup> | DIN 53482  |
| Flash Point                | °C                | >220               | DIN ISO 2592<br>Torsion Pendulum Analysis                |
| <b>Viscosity</b>           |                   |                    | DIN 53019  |
| (50 s-1, 20 °C)            | mPA . s           | 23,000 ± 3,000     |  |
| Yield stress               | Pa                | >40                | (by means of flow curve, 20 °C)                          |
| <b>Cone Penetration</b>    |                   |                    | DIN 51580, ASTM D 937                                    |
| 20 °C                      | 1/10mm            | >360               |  |
| -40 °C                     | 1/10mm            | >220               |  |
| Volatiles b.w.             | %                 | < 0.1              | 80 °C / 24 hrs   |
| Oxygen Induction Time      | Min               | > 60               | ASTM D3895, Belcore GR-20 Core<br>(190 °C/Cu sample pan) |
| Oil Separation (FTM 791.C) | %                 | 0                  | 80 °C / 24 hrs   |

## Packaging

|   |                          |                          |
|---|--------------------------|--------------------------|
| 20 kg pail                              | top internal diameter    | 328 ± 1 mm               |
|   | bottom internal diameter | 312 ± 1 mm               |
|   | Height                   | 383 ± 1 mm               |
| 170 kg ribbed drum                      | internal diameter        | 571 ± 3 mm               |
|   | Height                   | 875 ± 5 mm               |
| 170 kg straight sided drum              | internal diameter        | 571 ± 3 mm               |
|   | Height                   | 885 ± 5 mm               |
| 850 kg returnable collapsible container | length x width x height  | 1,200 x 1,000 x 1,185 mm |
| 850 kg disposable lined container       | length x width x height  | 1,200 x 1,000 x 1,400 mm |

Other container types and sizes such as plastic or stainless steel can be tailored to customer requirements based on quantities and location.

## Storage Information

Protect from moisture; store at a maximum temperature of 50 °C; storage life several years.

Note: This Technical Information reflects the current knowledge, and is designed to inform and advise. Indore Gel Pvt. Ltd. I assumes no liability for correctness. Modifications may be made in the interest of technical improvement



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