

Cable Filling and Protection Compounds



Navid Noor Polymer



Navid Noor Polymer, established in 1997 and based in Isfahan, Iran, is a leading producer and exporter of an extensive range of petroleum products. Our product portfolio includes petroleum jelly, paraffin wax, mineral oil, and a comprehensive range of cable protection compounds. With over two decades of industry experience, we offer a broad spectrum of compounds specifically designed for filling and safeguarding various cable types. Our product line features specialized compounds for telecommunications cable filling, encompassing both Conventional Telephone and Optical Fiber cables, as well as external protection compounds for electrical, traction, and special cables.



At Navid Noor Polymer, we excel in formulating and developing customized compounds to meet the unique requirements of each client. Our telecommunication cable filling compounds are expertly engineered to provide superior sealing and protection against corrosion and dielectric issues. They serve as an effective water barrier for both Jelly-Filled Telephone Cables (JFTC) and Optical Fiber Cables (OFC). Our cable compounds are categorized based on their application methods, including warm and cold applicable (thixotropic) compounds, to offer versatile solutions for diverse industrial needs across Europe, Asia, and the Middle East

.we are committed to formulating and developing specialized “customized” compounds tailored to each client's specific needs, reinforcing our dedication to innovation and customer satisfaction.



Telecommunication Cable Filling Compound

Cable filling compounds manufactured by Navid Noor offer an optimal seal and robust protection against corrosion and potential dielectric challenges. They effectively act as a water barrier for both Jelly-Filled Telephone Cables (JFTC) and Optical Fiber Cables (OFC) .

The diverse range of cable compounds produced by Navid Noor is systematically categorized based on their injection method. This includes both Thixotropic and Non-Thixotropic applicable compounds, ensuring a versatile and efficient application process tailored to various operational requirements.

Non-Thixotropic Filling Compounds

| | Drop Melting Point (°C) (ASTM D-127) | Cone Penetration (dmm) 25 °c (ASTM D-937) | Viscosity (cSt) 120 °c (ASTM D-445) | Oil Sep 50 °c (IEC-811-5-1) | Oil Sep 70 °c (IEC-811-5-1) | Flash Point (°c) (ASTM D-92) | Acid Value (mg.KOH/g) (ASTM D-974) | Dielectric Cons (23 1Mhz) (ASTM D-150) |
|----------------|--|---|---|-----------------------------------|-----------------------------------|------------------------------------|--|--|
| NOOR CJ-50 | 85-75 | 60 | 50 | ✓ | × | 200< | <0.55 | <2.3 |
| NOOR CJ-100 | 85-75 | 50 | 70 | ✓ | × | 200< | <0.55 | <2.3 |
| NOOR CJ-150 | 90-80 | 95-85 | 150 | ✓ | ✓ | 200< | <0.55 | <2.3 |
| NOOR CJ-200 | 95-85 | 115-110 | 190 | ✓ | × | 200< | <0.55 | <2.3 |
| NOOR CJ-200(H) | 95-85 | 90-80 | 220 | ✓ | ✓ | 200< | <0.55 | <2.3 |
| NOOR CJ-250 | 95-85 | 60-50 | 240 | ✓ | ✓ | 200< | <0.55 | <2.3 |
| NOOR CJ-500 | 100-90 | 90-80 | 500-400 | ✓ | ✓ | 200< | <0.55 | <2.3 |

Flooding Compound



This specification delineates the requirements for materials used in the overlaying armor of telecommunications cables, serving as a corrosion inhibitor and moisture barrier.

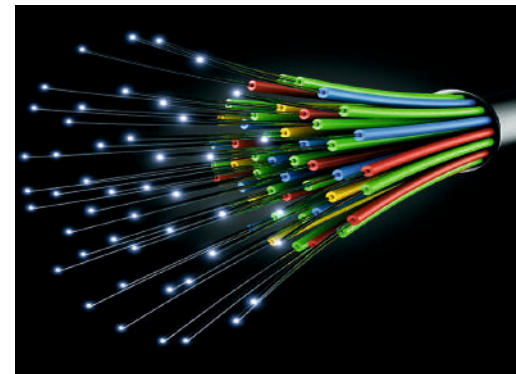
| | Drop Melting Point (°C) (ASTM D-127) | Viscosity (cSt) 120 °C (ASTM D-445) | Flash Point (°C) (ASTM D-92) | Density (g/cm ³) (ASTM D-1505) | Water absorption (%) (ASTM C-413) | Softening point (°C) (ASTM D-1304) | Compatibility (%)Test 60°C & 14 Days |
|----------------|--|---|------------------------------------|---|---|--|--|
| NOOR FC | 90< | 250-200 | 200< | 0.865 | Max 0.1 | min 98 | The decrease of tensile & elongation <15 |



We are fully equipped to formulate and develop customized flooding compounds, tailored to meet the specific needs of each client. Our commitment to customization allows us to address unique requirements and provide solutions that align precisely with our clients' objectives.

Optical Fiber Cable (ofc) Filling

Navid Noor's Optical Fiber Filling Gel, renowned for its exceptional water-blocking properties, ensures robust mechanical performance and exhibits excellent "thixotropic" behavior, suitable for cold filling technology. This gel contributes significantly to the transmission stability of fibers, thereby enhancing the overall product qualification rate.



Product Introduction

For outdoor optical cables, it is crucial to prevent water and moisture from compromising the strength of the optical fiber and increasing transmission loss, which can adversely affect communication quality. Filling the loose tube of the optical cable with water-blocking materials like the optical fiber filling gel is essential for achieving effective sealing and waterproofing. This process also provides anti-stress buffering and protection for the optical fiber. The quality of the optical fiber filling gel is a key factor in the stability of optical fiber transmission performance and the longevity of the optical cable. We offer a variety of fiber filling gels, including the standard optical fiber filling gel (ideal for filling around fibers in ordinary loose tubes), filling gel for optical fiber ribbons (suitable for filling around optical fiber ribbons), and hydrogen-absorbing optical fiber gel (appropriate for filling around the optical fiber gel in metal tubes), among others.

The optical fiber gel supplied by our company boasts commendable chemical and temperature stability, water repellency, thixotropy, minimal hydrogen evolution, fewer bubbles, and excellent compatibility with optical fibers and loose tubes. Additionally, it is non-toxic and poses no harm to humans.

Thixotropic Filling Compound

| | Viscosity (cP) 25 °c 50 S-1 | Cone Penetration (dmm) 25° c (ASTM D-937) | Flash Point (°c) (ASTM D-92) | Oil Sep(%) 80 °c,24h (FTM-791) | Drop point (°c) (ASTM D-566) | Density (g/cm³) (°c) (ASTM D-1475) | Acid Value (mg.KOH/g) (ASTDM 974) | Oxidation Induction Time (10°c/min, 190 c) | Appearance |
|----------------------|-----------------------------------|---|------------------------------------|--------------------------------------|------------------------------------|--|---|--|-------------|
| NOOR TG-2000 | 3.500-1.500 | 550< | 200< | ≤0.5 | 150≤ | 0.84 | ≤0.3 | 30≤ | Transparent |
| NOOR TG-4000 | 6.000-3.500 | 50±400 | 200< | ≤0.5 | 200≤ | 0.84 | ≤0.3 | 30≤ | Transparent |
| NOOR TG-8000 | 10.000-7.000 | 400< | 200< | ≤0.5 | 200≤ | 0.84 | ≤0.3 | 30≤ | Transparent |
| NOOR TG-10000 | 15.000-10.000 | 30±300 | 200< | 0 | 190≤ | 0.84 | ≤0.3 | 30≤ | Transparent |

Navid Noor's Optical Fiber Gel is particularly suitable for filling in micro cables or small diameter loose tube fiber optic cables .

We offer a diverse range of viscosities and other properties, tailored to meet your specific requirements. We invite our valued clients to share their desired specifications with us, ensuring a customized solution that perfectly aligns with their needs.



Electric Cable

Our specially formulated compounds are designed to protect cables from corrosion, lubricate their interiors, and impart a certain degree of plasticity. This unique combination of features ensures enhanced durability and functionality of the cables in various applications.

| CHARACTERISTIC | UNIT | METHOD | NOOR TC |
|------------------------|------|-------------|---------|
| Melting point | °c | ASTM D-127 | 65-55 |
| Drop Point | °c | ASTM D-566 | 45-55 |
| Viscosity 100 °c | °cSt | ASTM D-445 | 52-15 |
| Cone penetration @25°C | dmm | ASTM D-937 | 80-60 |
| Density @ 15 °C | g/cc | ASTM D-1298 | 0.8-09 |
| Flash Point | °c | ASTM D-92 | 250< |

The Noor TC grade compound is specifically engineered for use in traction cables. This specialized formulation ensures optimal performance and reliability in the demanding environments where traction cables are utilized.





- PIONEERING JELLY, OIL AND WAX SINCE 1997 -



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