**Filling Compounds for Copper Core Communication Cables**

**Insojell®** – Petrolatum and mineral oil based materials with a wide range of melting points, hardnesses and viscosities, compliant with European PTT specifications and capable of passing drainage tests at various levels of elevated temperature. Insojell has a long standing reputation of over 25 years for the successful water blocking of copper conductor telecom cables.

**Naptel®** – Fully synthetic polybutene based compounds available with a wide range of hardnesses and viscosities. All Naptel® products are compliant with the REA PE39 specification, and have a long standing record of successful water blocking and flooding in the telecom cables industry.

**Naptel® S** – H&R’s newest range of products for the telecom cables industry. Naptel® S products are “Semi-Synthetic” filling compounds based on a blend of mineral and synthetic hydrocarbons. Naptel® S is available with a variety of different viscosities and hardnesses. All are compliant with the REA PE39 specification.

**Flooding Compounds for Application by Drum Pump for Copper and Optical Cables**

**Insojell® 4822** – Petrolatum based material specially designed to meet Bundespost requirements.

**Insojell® 5724** – High temperature resistant interstitial flooding compound suitable for passing 80°C cable drainage tests when applied warm, and 70°C cable drainage tests when applied cold.

**Insojell® 5757** – A soft flooding compound suitable for cold pump application. Insojell 5757 withstands extreme mechanical working and shear, whilst still meeting 80°C cable drainage requirements. Based on proprietary technology.

**Optifill® 5209** – A non–melting thixotropic gel designed for filling the interstices between stranded tubes and strength members and as an undersheath flooding compound.

**Suitable for use over the temperature range – 40°C to 80°C.**

**Thixotropic Fibre Optic Cable Gels Designed for Use in Loose Tube, Slotted Core and Ribbon Constructions**

**Optifill® Range** – Soft, thixotropic gels designed as moisture blocking and buffering compounds for use in loose tube, ribbon, and mono–tube constructions. All products are formulated to be free of oil bleed and are available for a wide range of service conditions.

**Optifill® Sapphire** – Suitable for service temperatures between –60°C and 100°C, also suitable for use in ADSS aerial cables.

**Optifill® Quartz** – Suitable for service temperatures between –40°C and 100°C.

**Optifill® Ruby** – Suitable for service temperatures between –30°C and 100°C.

**Optifill® H2000** – Specially designed to absorb hydrogen gas, for use in stainless steel tube constructions (sub–sea and OPGW) and suitable for use between –40°C and 150°C.

**Flooding Compounds for Armouring Wires**

**Flooding Compound M** – A bituminous based material blended with synthetic polymers for bonding and corrosion protection between armouring wires and plastic oversheath. The compound offers excellent adhesive properties and superior flexibility at low temperatures.

**Water Swellable Coatings**

**Sahara®** – A unique water–borne coating material suitable for coating onto yarns and non–woven fabric tapes to create powder–free water swellable cable wraps.

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