



# PANCHMAHAL INSULATIONS PVT. LTD.

📍 Works : 32, GIDC Indl. Area, Ta. Kalol (Halol), Dist. Panchmahals, Gujarat, India - 389 330.

📍 Office : C-309, Siddharth Annexe-3, NH 8, Nr. Hotel Royal Palace, Dumad Chowkdi, Vemali, Vadodara, Gujarat - 391 740.

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## PRODUCT DATA SHEET

### PANCH BASIC INSULEX-PW ULC (ULTRA LOW CARBON, TUNDISH COVERING COMPOUND)

This PANCH BASIC INSULEX-PW ULC is a highly specialized, basic synthetic flux designed specifically for the continuous casting of extra-low and ultra-low carbon steel grades. Engineered with a strictly controlled carbon content and a precise basicity 1, it provides exceptional thermal insulation, effectively absorbs non-metallic inclusions, and prevents carbon pick-up in the molten steel bath at extreme temperatures up to 1650°C.

### FEATURES & BENEFITS

- **Ultra-Low Carbon Formulation:** Manufactured with negligible free carbon content to ensure zero carbon pick-up, making it essential for casting sensitive, ultra-low carbon (ULC) and extra-deep drawing steel grades.
- **Controlled Basicity:** Formulated with a basicity index of 1 (CaO/SiO<sub>2</sub> ratio) to provide an optimal balance between fluidity and the capacity to absorb and assimilate non-metallic inclusions from the steel.
- **High-Temperature Stability:** Delivers reliable performance and maintains a stable liquid slag layer at extreme operating temperatures up to 1650°C.
- **Excellent Thermal Insulation:** Forms a robust barrier over the molten steel to minimize heat radiation, maintain uniform bath temperature, and prevent premature freezing in the tundish.

### APPLICATIONS

- Specifically applied as a **Tundish Covering Compound (TCC)** during the continuous casting of ultra-low carbon and high-purity steel grades.
- High-temperature continuous casting operations reaching up to 1650°C, where both temperature retention and stringent steel cleanliness are critical.

### TECHNICAL SPECIFICATIONS

Parameter	Specification / Value
Product Description	Tundish Covering Compound
Type	Ultra Low Carbon
Application Area	Tundish Covering
Temperature Range	Up to 1650 °C
Special Features	Basicity: 1
Standard Container	Jumbo Bag



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## CHEMICAL COMPOSITION

Major Component	Percentage (%)
SiO <sub>2</sub> (Silicon Dioxide)	43.00%
CaO (Calcium Oxide)	43.0%
Al <sub>2</sub> O <sub>3</sub> (Aluminum Oxide)	7.00%
MgO (Magnesium Oxide)	4.50%
Fe <sub>2</sub> O <sub>3</sub> (Iron Oxide)	1.50%
Free Carbon (C Free)	Max. 0.2%

## PACKING & STORAGE

- **Packing:** Material is supplied in heavy-duty bulk **Jumbo Bags** to facilitate easy mechanical handling, secure transport, and bulk feeding directly onto the tundish.
- **Shelf Life:** 6 to 12 months when stored under proper dry conditions.
- **Handling & Storage:** Store in a dry, covered, and well-ventilated warehouse. It is critical to keep the jumbo bags sealed and protected from rain or heavy moisture, as moisture pick-up can introduce hydrogen into the steel and degrade the powder's insulating and melting characteristics.

