

## LT-1

### Description

A sintered composite of chromium (65%) and alumina (35%).

### Advantages

- ✓ Resistant to:
  - Wear and abrasion
  - Oxidation
  - Mechanical and thermal shock
- ✓ Non-wetting to most molten metals
- ✓ Gas tight

### Limitations

- ✓ Requires an inner alumina protection tube when used with platinum thermocouples
- ✓ Requires pre-heating to at least 480°C before immersion in molten metals
- ✓ Do not use in carburizing or nitriding atmospheres
- ✓ Do not use in molten aluminum, molten glass or salt bath applications

### Maximum exposure temperature

3000°F (1650°C)

### Thermal Conductivity

Similar to 300 Series stainless steels

### Typical applications

- ✓ Blast furnaces
- ✓ Stack gas monitoring
- ✓ Incinerators
- ✓ Cement and calcining kilns
- ✓ Chemical reactors
- ✓ Steel soaking pits
- ✓ Molten metals - tin, lead (to 350°C), zinc (to 875°C), copper and brass (to 1150°C)