Iron-nickel-cobalt alloy is designed for precise and uniform thermal expansion characteristics. The coefficient of thermal expansion of nickel and iron is more or less the same. However, adding nickel to iron can result in an alloy with a reduced coefficient of thermal expansion by an order of magnitude. These characteristics make them suitable for use in a myriad of applications, including medical, electronics, aerospace engineering, telecommunications and cryogenic components. Iron-nickel-cobalt alloy is often utilized with both alumina type ceramic materials and the harder Pyrex or borosilicate glasses in the production of hermetic seals. It is widely used in the manufacture of diodes and transistors for lids and closures in many different hybrid electronic circuit packages as well as in the production of microwave tubes.

### Chemical Composition
- **Molecular Formula**: Fe:Ni:Co
- **Density**: 5.2g/cm³
- **Melting Point**: 2600°F

### Technical Specification
- **Assay**: 99.9%
- **Fe**: 55%
- **Ni**: 28%
- **Co**: 17%
- **Others**: < 0.1 %
Applications

- Hard glass sealing
- Ceramic package sealing
- CRT electron gun electrodes
- Super alloys
- Aerospace materials

Ordering Information and Stock Availability

- Product: Copper Tin Alloy Nanopowder
- Stock Availability: Available
- Distribution: Global
- Packing Sizes: 25Gms, 50Gms, 100Gms, 500Gms & Bulk Orders

Handling Recommendations

- Store in the original container in a dry location.
- Tumble contents prior to use to prevent segregation.
- Open containers should be stored in a drying oven to prevent moisture pickup.

Safety Recommendations

- Download MSDS/SDS NS6130-07-704
- SDS is available from the Nanoshel
- Website at https://www.nanoshel.com/sections/alloy-nano-powders

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