

MATERIAL SELECTION GUIDE



ENGINEERSWIREMESH
E-119, Phase VII
Industrial Area
Mohali
info@engineerswiremesh.com

Material Selection Guide for Metal Wire Mesh Belts

| Material | Max Operating Temp | Corrosion Resistance | Typical Application |
|---|--|---|---|
| SS304 (AISI 304) | ~450–500°C | Very good in most environments; not resistant to strong chlorides | Food processing, bakery ovens, washing lines, packaging conveyors |
| SS316L (AISI 316L) | ~500–600°C | Excellent; superior resistance to chlorides, acids, saline and chemical washdowns | Seafood processing, chemical plants, pharmaceutical conveyors, aggressive CIP cleaning |
| High Carbon Steel | ~400–450°C | Low; prone to rust unless coated | Heat treatment furnaces, quenching, automotive components, heavy-duty load conveying |
| Galvanized Steel | ≤200°C (limited by zinc coating) | Moderate; zinc coating provides limited corrosion protection | General conveying, mild environments, low-cost applications (non-food) |
| Nickel Alloys (Inconel, Hastelloy, Nichrome) | Up to 1000–1100°C (depending on grade) | Excellent resistance to oxidation, scaling, and harsh chemicals | Aerospace furnaces, metallurgical heat treatment, high-temperature kilns, chemical processing |
| Specialty Coatings (Teflon, Ceramic, Zinc, Passivation) | Varies by base metal | Improves resistance or adds non-stick / low-friction properties | Non-stick food conveyors, chemical-resistant applications, enhanced hygiene lines |