



High-Strength Steel Bright Bars for PEB Reinforcement: The Hidden Framework of Modern Construction

In the world of pre-engineered buildings (PEBs), where efficiency meets durability, Steelmet Industriesa?? cold drawn steel bright bars form the critical reinforcement elements that ensure structural integrity. Our precision-engineered bright bars provide the perfect balance of strength and flexibility needed for PEB frameworks that withstand earthquakes, high winds, and heavy loads.

# Why Reinforcement Matters in PEB Constructions Steels

PEBs demand materials that can handle:

- a?? Dynamic load distribution across long spans
- a?? Thermal expansion/contraction in varying climates
- a?? Corrosion resistance for exterior applications
- a?? Easy weldability for fast on-site assembly

#### Steelmetâ??s solution delivers:

- â?? Consistent yield strength (minimum 345 MPa as per IS 2062)
- â?? Tighter tolerances (±0.05mm) for precise fitment
- â?? Superior weldability with controlled carbon equivalents
- â?? Custom lengths up to 12m to reduce joints

## **Key Applications in PEB Structures**

- 1. Primary Framework Reinforcement
  - Column and beam stiffeners for high-rise PEBs



- Moment-resistant connections in seismic zones
- Haunch reinforcements at roof transitions

### 2. Secondary Structural Elements

- Purlins and girts for cladding support
- Bracing rods for wind load resistance
- Base plate anchors for foundation stability
- 3. Specialized Components
- Specialized Components

   Crane runway beams in industrial PEBS teels, Stainless Steels

  - Canopy and walkway frameworks

# **Technical Specifications**

Grade	Yield Strength (MPa)	Elongation (%)	Carbon Equivalent (C.E.)	Ideal For
E250	250 min	23+	â?¤0.42	Light-duty PEBs
E350	345 min	22+	â?¤0.45	Medium-rise buildings
E410	410 min	20+	â?¤0.48	Heavy industrial PEBs

<sup>\*</sup>All grades suitable for:

- Hot-dip galvanizing (up to 120μm coating)
- Shot blasting for paint adhesion

# Why Engineers Specify Steelmet for PEB Projects



- a? **PEB-specific alloys** developed with leading building system manufacturers
- a? **Just-in-time cutting** to project drawings (save 15% material waste)
- a? Batch traceability with mill test certificates for compliance
- a? Technical support for connection design and welding procedures

Explore our PEB reinforcement solutions at Steelmet Industries a?? website or request projectspecific grade recommendations from our engineering team.

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**Date** 

29/10/2025

**Auteur** 

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