

# Technical Specification for G.I Cable Trays and Support Angles As per OPTCL Norms

This document summarizes the technical specification requirements generally followed by Odisha Power Transmission Corporation Limited (OPTCL) for G.I Cable Trays and supporting galvanized iron structural members used in substations.

## 1. Applicable Standards

Sl. No.	Standard	Description
1	IS 2062	Structural Steel Specification
2	IS 2629	Hot Dip Galvanizing Process
3	IS 4759	Hot Dip Zinc Coating Requirements
4	IS 808	Dimensions for Structural Steel Sections
5	IEC Relevant Clauses	Cable Management System Requirements

## 2. Technical Specification of G.I Cable Trays

Parameter	450x75x2500 mm Tray	300x75x2500 mm Tray
Type	Perforated G.I Tray	Perforated G.I Tray
Tray Width	450 mm	300 mm
Tray Depth	75 mm	75 mm
Tray Length	2500 mm	2500 mm
Material	Hot Dip Galvanized Steel	Hot Dip Galvanized Steel
Sheet Thickness	Minimum 2 mm	Minimum 2 mm
Galvanization	Hot Dip Galvanized	Hot Dip Galvanized
Zinc Coating	Minimum 610 gm/sq.m	Minimum 610 gm/sq.m
Installation	Indoor/Outdoor Substation Use	Indoor/Outdoor Substation Use

## 3. Technical Specification of Support G.I Angle

Parameter	Requirement
Section Size	50 x 50 x 6 mm
Material	Mild Steel conforming to IS 2062
Type	Equal Angle
Galvanization	Hot Dip Galvanized
Zinc Coating	Minimum 610 gm/sq.m
Usage	Cable Tray Supporting Structure
Mounting	Wall/Floor/Structural Mounting
Fabrication	Drilled/Punched as required

## 4. General Requirements

All fabricated components shall be free from sharp edges and burrs. All welding shall be properly dressed before galvanization. Cable trays shall have adequate perforations for ventilation and drainage. Fasteners shall be galvanized and corrosion resistant. Tray supports shall withstand cable load and short circuit forces. Suitable for outdoor substation environment with heavy pollution conditions.

## 5. Inspection & Tests

Dimensional Verification Galvanization Thickness Test Visual Inspection Load Bearing Verification Material Test Certificate Verification

### Reference:

OPTCL Substation Material & Structural Practice generally followed for cable management systems.