Industrial Coatings Inspection Checklist

Quality Control Hold Points from Pre-Surface Preparation through Final Handover

CATEGORY: QA/QC CHECKLIST | POSITIONING: INSPECTION PRECISION. ASSET INTEGRITY. OPERATIONAL CONFIDENCE.

1. Pre-Preparation & Environmental Hold Points

- Verify project coating specification, Product Data Sheets (PDS), and Safety Data Sheets (SDS) on site.
- Measure ambient air temperature, relative humidity (RH), steel substrate temperature, and dew point.
- Confirm substrate temperature remains at least 3 degrees C above the dew point prior to blasting and coating.
- Inspect steel fabrication condition (remove weld spatter, sharp edges, laminations, and oil/grease per ISO 8501-3 / SSPC-SP1).

2. Surface Preparation & Cleanliness Checks

Inspection Parameter	Reference Benchmark	Verification Method
Soluble Salt Contamination	Per project spec (e.g., Bresle limits)	Bresle patch conductivity test prior to primer
Abrasive Blast Cleanliness	ISO 8501-1 Sa 2.5 / Sa 3 or SSPC-SP10	Visual comparator under calibrated illumination
Surface Anchor Profile	Per coating PDS (typically 40–100 microns)	Replica tape & spring micrometer or depth gauge
Residual Dust Assessment	ISO 8502-3 Class 1 or 2 max	Pressure-sensitive tape pull test on blasted steel

3. Application & Final Acceptance Verification

- Verify mixing ratios, induction times, pot life, and thinner compliance prior to spray or stripe application.
- Monitor Wet Film Thickness (WFT) continuously during application and Dry Film Thickness (DFT) per SSPC-PA 2 / ISO 19840 after cure.
- Perform low-voltage or high-voltage holiday (pinhole) detection where specified for immersion linings or buried pipelines.
- Conduct specified adhesion testing (pull-off ASTM D4541 or cross-cut ASTM D3359) and compile traceable Daily Coating Inspection Reports.