



PROCESS
INDUSTRY
PRACTICES

April 2020

Coatings

**PIP CTSH1000
Application of External Coatings
in Hygienic Facilities**

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PURPOSE AND USE OF PROCESS INDUSTRY PRACTICES

In an effort to minimize the cost of process industry facilities, this Practice has been prepared from the technical requirements in the existing standards of major industrial users, contractors, or standards organizations. By harmonizing these technical requirements into a single set of Practices, administrative, application, and engineering costs to both the purchaser and the manufacturer should be reduced. While this Practice is expected to incorporate the majority of requirements of most users, individual applications may involve requirements that will be appended to and take precedence over this Practice. Determinations concerning fitness for purpose and particular matters or application of the Practice to particular project or engineering situations should not be made solely on information contained in these materials. The use of trade names from time to time should not be viewed as an expression of preference but rather recognized as normal usage in the trade. Other brands having the same specifications are equally correct and may be substituted for those named. All Practices or guidelines are intended to be consistent with applicable laws and regulations including OSHA requirements. To the extent these Practices or guidelines should conflict with OSHA or other applicable laws or regulations, such laws or regulations must be followed. Consult an appropriate professional before applying or acting on any material contained in or suggested by the Practice.

This Practice is subject to revision at any time.

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PIP CTSH1000 Application of External Coatings in Hygienic Facilities

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Data Forms

CTSH1000-D001 – Documentation
Requirements Sheet

*The following data forms shall be part of this Practice
only if indicated on the purchaser's completed
Documentation Requirements Sheet.*

CTSH1000-D002 – Color Selection Sheet

CTSH1000-D100 – Coating System
User Defined

CTSH1000-D101 – Coating System
Epoxy Polyamide EC

CTSH1000-D102 – Coating System
Epoxy Polyamide (2 Coats) EC/EC

CTSH1000-D103 – Coating System
Epoxy Polyamide / Urethane EC/UR

CTSH1000-D104 – Coating System
Epoxy Polyamide (2 Coats) / Urethane
EC/EC/UR

CTSH1000-D105 – Coating System
Epoxy Polyamide / Water-Borne Acrylic
EC/WA

CTSH1000-D106 – Coating System
Epoxy Novolac EN

CTSH1000-D107 – Coating System
Epoxy Novolac (2 Coats) EN/EN

CTSH1000-D108 – Coating System
Heat Cured Silicone (2 Coats) HS/HS

CTSH1000-D109 – Coating System
Inorganic Copolymer (2 Coats) IC/IC

CTSH1000-D110 – Coating System
Inorganic Zinc / Heat Cured Silicone
(2 Coats) IZ/HS/HS

CTSH1000-D111 – Coating System
Inorganic Zinc / Silicone Acrylic (2 Coats)
IZ/SA/SA

CTSH1000-F – Daily Inspection Report

1. Scope

This Practice describes the general requirements for surface preparation, application, and inspection of non-architectural protective coatings utilized for substrates used in hygienic processes and facilities.

2. References

Applicable parts of the following Practices, industry codes and standards, and references shall be considered an integral part of this Practice. The edition in effect on the date of contract award shall be used, except as otherwise noted. Short titles will be used herein where appropriate.

2.1 Process Industry Practices (PIP)

- PIP CTCE1000 - *External Coating System Selection Criteria*
- PIP CTCH1000 - *External Coating System Selection Criteria for Hygienic Facilities*
- PIP CTEG1000 - *Guidelines for Use of Coatings Practices*
- PIP CTSC1000 - *Application of Coatings to Concrete*
- PIP CTSE1000 - *Application of External Coatings*
- PIP CTSL1000 - *Application of Internal Linings*
- PIP CTSU1000 - *Application of Underground Coatings*

2.2 Industry Codes and Standards

- American Society of Testing and Materials (ASTM) International
 - ASTM D3359 - *Standard Test Methods for Rating Adhesion by Tape Test*
 - ASTM D4285 - *Standard Test Methods for Indicating Oil or Water in Compressed Air*
 - ASTM D4417 - *Standard Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel*
 - ASTM D4541 - *Standard Test Methods for Pull-Off Strength of Coatings Using Portable Adhesion Testers*
 - ASTM D7127 - *Standard Test Method for Measurement of Surface Roughness of Abrasive Blast Cleaned Metal Surfaces Using a Portable Stylus Instrument*
 - ASTM E337 - *Standard Test Method for Measuring Humidity with a Psychrometer (the Measurement of Wet- and Dry-Bulb Temperatures)*
- International Organization for Standardization (ISO)
 - ISO 2178 - *Non-magnetic coatings on magnetic substrates - Measurement of coating thickness - Magnetic method*
 - ISO 2360 - *Non-conductive coatings on non-magnetic electrically conductive base metals - Measurement of coating thickness - Amplitude-sensitive eddy current method*
 - ISO 2409 - *Paints and varnishes - Cross-cut test*
 - ISO 4624 - *Paints and varnishes Pull-off test for adhesion*
 - ISO 4677-2 - *Atmospheres for conditioning and testing - Determination of relative humidity - Part 2: Whirling psychrometer method*