CSA Z245.20 External Fusion Bond Epoxy Coating for Steel Pipe / Resistance to Impact of the Coating / Testing Equipment

Description

12.12 Resistance to Impact of the Coating

12.12.1 Equipment
The equipment shall consist of the following:
(a) an impact tester having the following features:
(i) 1 kg falling mass;
(ii) 15.8 mm diameter ball-bearing tup;
(iii) 1 m long graduated slotted tube;
(iv) for laboratory-coated specimen testing, flat anvils hardened to 55 Â± 5 HRC;
(v) for testing specimens from test rings, an anvil of 40 mm radius hardened to 55 Â± 5 HRC; and
(vi) an attached wooden base measuring at least 600 Ã— 600 Ã— 600 mm, with the top of the base being hardwood;
(b) a dc holiday detector; and
(c) a freezer.
12.12.2 Test Specimens
Laboratory-coated test specimens shall be approximately 6.4 Ã— 25 Ã— 200 mm. Specimens from test rings
shall be approximately 25 mm Ã— 200 mm Ã— pipe wall thickness, with the 200 mm dimension parallel to
the axis of the pipe.
12.12.3 Procedures
12.12.3.1 Place the test specimen in the freezer, cool it to â€“30 Â± 3 Â°C, and hold it in this temperature range for a minimum of 1 h. Place the cooled specimen in the impact tester, centered on the applicable anvil.
12.12.3.2 Using an impact energy of at least 1.5 J, impact the specimen three times, with the impact points located at least 50 mm from each other. The three impacts shall be completed within 30 s of removal of the test specimen from the freezer. The ball bearing shall be rotated to an unused location after a maximum of 10 impacts and replaced after a maximum of 200 impacts.

12.12.3.3 Allow the sample to warm to 20 Â± 5 Â°C. Test for the presence of holidays with a dc holiday detector set
at 1750 Â± 250 V, or a wet-sponge holiday detector set at 67.5 Â± 4.5 V.
12.12.4 Reports
Where required by Clause 11.1, the following information shall be reported to the purchaser by the applicator:
(a) the epoxy powder batch number;
(b) the date of testing;
(c) the applied impact energy value in joules;

(d) the holiday detection volt

Falling Weight Impact Tester According to CSA Z245.20

- Fixture for samples in different sizes is available
- Manually controlled easy to use fixture
- Max. falling height : 100 cm
- Falling weight head radius : 15.8 mm
- Falling weight : 1 Kg
- Brake unit prevents the subsequent impacts and provides accurate measurement
- Magnetic or pneumatic release of dart
- Manual heigh adjustment
- Flat anvils hardened to 55 Â± 5 HRC
- Anvil of 40 mm radius hardened to 55 Â± 5 HRC
- Attached wooden base measuring at least 600 Ã— 600 Ã— 600 mm

Deep Freezer According to CSA Z245.20

- Digital temperature controller
- Digital timer included
- SS304 inside chamber
- 55 Lit of inner chamber
- Inside dimensions 30*35*40
- Temperature -30Câ€¦Room temperature

Category

1. Equipment for Standards
2. Standards