

PT/289/0909 – AS (September 2009) Assessment of Akzo Nobel ‘Resicoat R4 Blue’ fusion bonded epoxy coating - schedule



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1. Scope

To assess the ‘Resicoat R4 Blue’ fusion bonded epoxy coating produced by Akzo Nobel Powder Coatings GmbH to WIS 4-52-01: 1992.

The Resicoat R4 material is a fusion bonded epoxy powder coating which provides a sealed surface, free of any porous areas for the protection of cast iron valves and fittings. Generally the coating is used for butterfly valves, filter slabs, fittings, gate valves, ground anchor, hydrants, insulation joints and water meters.

2. Assessment schedule

2.1 To assess the performance of the ‘Resicoat R4 Blue’ against WIS 4-52-01 including compliance with BS6920.

2.2 To audit the evidence of quality control procedures.

3. Review of performance tests

3.1 The following performance tests are required by WIS 4-52-01:

- Clause 5.3.2.1 Coating thickness
- Clause 5.3.2.2 High Voltage Holiday Detection
- Clause 5.3.2.3 Visual Appearance
- Clause 5.3.2.4 Adhesion Test
- Clause 5.3.2.5. Coating Cure Test
- Clause 5.3.2.6 Flexibility Test
- Clause 5.3.2.7 Impact test: sphere
- Clause 5.3.2.8 Impact Test: stone

- Clause 5.3.2.9 Penetration Test
- Clause 5.3.2.10 Wear Test
- Clause 5.3.3.1 Water Immersion test
- Clause 5.3.3.2 Simulated Effluent Exposure Test
- Clause 5.3.3.3 Salt Spray Exposure Test (BS 3900 Part F4)
- Clause 5.3.3.4 Cathodic Disbondment Test (BS 3900 Part F11)
- Clause 5.3.3.5 Natural weathering Test
- Clause 5.3.3.5 Accelerated weathering Test

Tests are carried out on that have been subjected to the accelerated weathering test (QUV exposure), as follows:

- Clause 5.3.2.1 Coating thickness
- Clause 5.3.2.2 High Voltage Holiday Detection
- Clause 5.3.2.4 Adhesion Test
- Clause 5.3.2.6 Flexibility Test
- Clause 5.3.2.7 Impact test: sphere

4. Review of procedures

In addition to the performance of the coating, the quality control, as it applies to incoming materials, control of production and outgoing materials are checked.

5. Reference documents

1. WIS 4-52-01 Specification for polymeric anti-corrosion (Barrier) coatings. Issue 1: 1992.
2. BS 6920 Suitability of non-metallic products for use in contact with water

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intended for human consumption with regard to their effect on the quality of the water. BSi, 2000.