

EDS

Engineering,
GM DAEWOO Auto & Technology
Standards

METHOD OF POROSITY EVALUATION FOR PHOSPHATED AND METALLIC COATING

EDS-T-7135

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www.eds-t-7135.com



1. PURPOSE

The purpose of this standard is to determine and evaluate the porosity of phosphate coating and metallic coatings (Pb, Sn etc) on the metal of ferrous substrates.

2. SCOPE

This standard specifies the porosity of phosphate coating and metallic coatings (Pb, Sn etc) on the metal of ferrous substrates.

This can be applied to post conditioning on phosphate coating with organic materials such as oil, wax or paint.

3. DEFINITIONS

3.1. Phosphate coating : The method of surface treatment which is formed metallic phosphate coating [$Z_n(H_2PO_4)_2$, $M_n(H_2PO_4)_2$ etc.] by the phosphate substrates on ferrous substrates for promotion to protect the corrosion of metallic products.

3.2. Metallic coating : To be coating the surface of products with the metals such as Pb, Sn etc.

4. METHOD OBTAINING TEST PIECE

4.1. The test piece wherever possible shall be the finished part.

4.2. When procedure 4.1 is impractical, tests shall be conducted on specially prepared test panels. The test panels shall have a surface area of not less than 100 cm^2 and shall be made from sheet steel to SCP1, KS D 3512.

4.3. Number of test piece : For initial sample approval and arbitration purposes, at least three test pieces and for routine quality control, at least one test pieces shall be tested.

5. TEST PIECE PREPARATION

5.1. Phosphated surface without post treatment shall be tested as received and post treatment by organic solvent on coating surface shall be degressed in suitable way.

5.2. Metallic coated surfaces shall be initially degressed prior to testing using a suitable solvent (Xylene, Petroleumether).

6. APPARATUS BEFORE TEST

6.1. Suitable apparatus for preparing the test solution

6.2. Filter paper (Whatman No 42)