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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 9755-2014

**Synthetic resin emulsion coatings for exterior wall
(English Translation)**

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1 Scope

This standard specifies the product classification, grading, requirements, test methods, inspection rules and marking, packaging and storage of synthetic resin emulsion coatings for exterior wall.

This standard applies to exterior wall coatings that are made of synthetic resin emulsion as the base material, pigments, body pigments (primers may not add pigments or body pigments) and various additives; it can form a thin coating with a smooth surface after application, including primers, midcoats, topcoats. This coating is suitable for decoration and protection of the outer surfaces of buildings and structures.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document;

for the undated documents, only the latest version (including all the amendments) is applicable to this standard.

GB/T 1728-1979 Methods of test for drying time of coatings of paints and putties

GB/T 1733-1993 Determination of resistance to water of films

GB/T 1766 Paints and varnishes - Rating schemes of degradation of coats

GB/T 1865-2009 Paints and varnishes - Artificial weathering and exposure to artificial

radiation - Exposure to filtered xenon-arc radiation

GB/T 1910 Newsprint

GB/T 3186 Paints, varnishes and raw materials for paints and varnishes - Sampling

GB/T 6682-2008 Water for analytical laboratory use - Specification and test methods

GB/T 6750 Paints and varnishes - Determination of density - Pycnometer method

GB/T 8170-2008 Rules of rounding off for numerical values and expression and judgement of limiting values

GB/T 9265 Determination for alkali resistance of film of architectural paints and coatings

GB/T 9268-2008 Determination of freeze-thaw resistance of latex and emulsion paints

GB/T 9271-2008 Paints and varnishes standard panels for testing

GB/T 9278 Temperatures and humidity for conditioning and testing of paint specimens

GB/T 9286 Paints and varnishes - Cross cut test for films

GB/T 9750 Marks for package of coating products

GB/T 9780-2013 Test method for dirt pickup resistance and stain removal of film of architectural coatings and paint

GB/T 13491-1992 General rule for packing of coatings

GB/T 15608 The Chinese color system

GB/T 16422.3-1997 Plastics - Methods of exposure to laboratory light sources - Part

3.Fluorescent UV lamps

GB/T 23981 Determination of contrast ratio of white and light colored paints

HG/T 3001-1999 Iron blue pigments

JC/T 412.1-2006 Fiber cement flat sheets - Part 1.Non-asbestos fiber cement flat sheets

JG/T 25 Determination for freeze-thaw resistance of film of building coatings

3 Product classification and grading

This standard divides synthetic resin emulsion coatings for exterior wall into three categories. primer, midcoat, topcoat.

Topcoat is divided into three grades according to the use requirements. superior grade, first-grade, qualified grade. Primer is divided into Type I and Type II according to the requirements of salt and alkali resistance and impermeability.

4 Requirements

4.1

Primer shall meet the requirements of Table 1.

mix evenly, it is evaluated as qualified.

5.5.1 Primer workability

Apply the specimen on the smooth surface of the test board with a brush. If the brush runs smoothly, it is evaluated as "no difficulty in brushing".

5.5.2 Workability of midcoat and topcoat

Apply the specimen on the smooth surface of the test board with a brush. The coating amount is about 100 μm wet film thickness. The long side of the test board is horizontal; the short side is placed vertically at an angle of about 85° to the horizontal plane. After 6 hours of placement, apply the second coat of the specimen in the same way. When the brush runs smoothly during the second coat, it can be evaluated as "no difficulty in brushing the second coat".

5.6 Low temperature stability

Perform the test for 3 cycles according to Method A in GB/T 9268-2008.

5.7 Appearance of coating film

After the test in 5.5, place the test board for 24 hours and visually observe the coating film. If there is no obvious shrinkage and sagging, meanwhile the coating film is uniform, it is evaluated as "normal".

5.8 Drying time

It is carried out according to the provisions of surface drying method B in GB/T 1728-1979.

5.9 Alkali resistance

It is carried out according to the provisions of GB/T 9265. If 2 of the 3 test boards do not show blistering, powdering, obvious discoloration and other coating damage phenomena, it can be evaluated as "no abnormality". If the above damage phenomena occur, describe it according to GB/T 1766.

5.10 Water resistance

It is carried out according to the provisions of method A in GB/T 1733-1993. In addition to edge sealing, the back of the test board must be sealed before the test. Immerse the 3 test boards in the grade-3 water specified in GB/T 6682. If 2 of the 3 test boards do not show blistering, powdering, obvious discoloration and other coating damage phenomena, it can be evaluated as "no abnormality". If the above coating damage phenomena occur, describe it according to GB/T 1766.

5.11 Salt and alkali resistance

For the test of salt and alkali resistance, see Appendix A.

5.12 Water permeability

For the test of water permeability, see Appendix B.

5.13 Adhesion

It is carried out according to the provisions of GB/T 9286. Use a single-edged knife to cut 3 parallel lines along the long side of the sample in the parallel and vertical directions, with a spacing of 3 mm and a grid number of 4, to conduct a tape tear test.

5.14 Contrast ratio

It is carried out according to the provisions of GB/T 23981; the arbitration test uses the polyester film method.

5.15 Scrubbing resistance

It is carried out according to the provisions of Appendix C.

5.16 Artificial weathering resistance

The test is carried out according to the provisions of Cycle A in GB/T 1865-2009. The evaluation of the results is carried out according to GB/T 1766.

5.17 Stain resistance

Perform two cycles of the test according to the provisions of Chapter 5 of GB/T 9780-2013 "The test method for stain resistance of exterior walls - Brushing method B (fast oven). For some exterior wall paint samples, when testing stain resistance, after consultation with the relevant parties, the test boards are allowed to be tested after 7 days of curing and then irradiated with ultraviolet light for 4 hours (ultraviolet light irradiation is carried out in accordance with GB/T 16422.3-1997, exposure method 1, the light source is