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

GB/T 21868.4-2008

**Pigments and extenders -- Methods of dispersion for
assessment of dispersion characteristics -- Part 4: Dispersion
using a bead mill**

颜料和体质颜料 评定分散性用的分散方法 第4部分:用砂磨分散

(English Translation)

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Foreword

This section identical with the international standard ISO 8780-4:1990 "Pigments and extenders --- dispersion for assessment of dispersion method used in the first ---Part 4. sand dispersed "(in English).

This section is one of the GB/T 21868 "dispersion method of pigments and extenders assessment of dispersion characteristics with" national standards, listed below A series of national standards with international standards and the structure corresponding to.

- Part 1. General (ISO 8780-1:1990);
- Part 2. oscillation mill dispersion (ISO 8780-2:1990);
- Part 3. dispersion using a high speed mixer (ISO 8780-3:1990);
- Part 4. sand dispersion (ISO 8780-4:1990);
- Part 5. automatic flat mill dispersion (ISO 8780-5:1990);
- Part 6. (1990 ISO 8780-6) dispersed with a three-roll mill.

This section GB/T Part of 421,868.

Are listed below in this section is closely related to the GB/T 21867 "Evaluation Method pigments and dispersion" series of national standard Prospective structure and corresponding international standards.

- Part 1. Changes the tinting strength of colored pigments to be assessed (ISO 8781-1:1990);
- Part 2. change the fineness of grind to be assessed (ISO 8781-2:1990);
- Part 3. Evaluation of changes in the gloss (ISO 8781-3:1990).

This section of Appendix A normative appendix.

This part is proposed by the China Petroleum and Chemical Industry Association.

This part of the National Standardization Technical Committee and is under the jurisdiction of paints and pigments.

This section is drafted. in the construction of Changzhou coating Chemical Research Institute, Kunshan City Shiming Technology Development Co., Ltd.

1 Scope

This section provides the use of a sand dispersed pigments and fillers methods.

This section should be combined with GB/T 21867 of the evaluation method, the use of low-viscosity agreed binder system. This section should Read in conjunction with GB/T 21868.1-2008.

This method is limited to a low to medium viscosity, make the grind sand sphere of freedom of movement. Therefore, this method is suitable for the abrasive stick Degree than is suitable for GB/T 21868.2-2008 prescribed dispersion method millbase viscosity.

2 Normative references

The following documents contain provisions which, through reference GB/T 21868 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 3186-2006 Paints, varnishes and raw materials for paints and varnishes - Sampling (ISO 15528:2000, IDT) GB/T 6753.4-1998 Paints and varnishes - Determination of flow time by use of flow cups (eqv ISO 2431:1993) GB/T 21868.1-2008 Pigments and extenders dispersion for assessment of dispersion method used in Part 1. General (ISO 8780-1:1990, IDT) GB/T 21867.1-2008 Evaluation Method of pigments and dispersion - Part 1. change the tinting strength of colored pigments of assessed (ISO 8781-1:1990, IDT) GB/T 21867.2-2008 Evaluation Method of pigments and dispersion - Part 2. Changes by the fineness of grind was Assessment (ISO 8781-2:1990, IDT) GB/T 21867.3-2008 Evaluation Method of pigments and dispersion - Part 3. Evaluation of changes in the gloss (ISO 8781-3:1990, IDT)

3 Requires supplementary information

Test methods specified in this part needs to be improved with additional information. The contents of the supplementary information is given in Appendix A.

4 Equipment

Normal laboratory equipment and glassware, as well as the following instruments.

4.1.1 Driving device

Drive power level sufficient to disk (Fig. 2) Effective circumference speed remains within the agreed scope.

Motor drive unit should be between shaft revolutions/min ~ 5000r/min in 1000r. The drive should be installed in a rack, Wheel height can be adjusted via a bracket. On the mounting bracket has a cylindrical clamping device, so that the shaft coaxially with the cylinder.

4.1.2 Stirrer and barrel

A stirring device constituted by a round shaft, round shaft has a solid disc, the porous discs or rings arranged in concentric or eccentric. Rotating stir the distance between the cylinder wall and the mix should have adequate clearance should be adequate clearance between the outer edge of the disk that is effective and the cylinder wall.

GB/T 21868.4-2008/ISO 8780-4:1990