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Pigments and extenders — Methods of dispersion for assessment of dispersion characteristics —

Part 6:

Dispersion using a triple-roll mill

*Pigments et matières de charge — Méthodes de dispersion pour évaluer
la dispersibilité —*

Partie 6: Dispersion à l'aide d'une broyeuse tricylindre



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 8780-6 was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*.

ISO 8780 consists of the following parts, under the general title *Pigments and extenders — Methods of dispersion for assessment of dispersion characteristics*:

- Part 1: Introduction
- Part 2: Dispersion using an oscillatory shaking machine
- Part 3: Dispersion using a high-speed impeller mill
- Part 4: Dispersion using a bead mill
- Part 5: Dispersion using an automatic muller
- Part 6: Dispersion using a triple-roll mill

Annex A forms an integral part of this part of ISO 8780.

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Pigments and extenders — Methods of dispersion for assessment of dispersion characteristics —

Part 6: Dispersion using a triple-roll mill

1 Scope

This part of ISO 8780 specifies a method for the dispersion of pigments and extenders using a triple-roll mill. The results permit conclusions to be drawn as to the behaviour of the products tested when dispersed using corresponding production machinery. This part of ISO 8780 is for use in conjunction with the methods of assessment described in ISO 8781, using an agreed binder system of high viscosity free from volatile materials. It should be read in conjunction with ISO 8780-1.

This method is restricted to high-viscosity mill bases. To improve the precision of the method, it is recommended that the dispersion procedures for the test pigment and agreed reference pigment are carried out at the same temperature.

The results obtained are not suitable for making comparisons with dispersibility results obtained using other methods of dispersion.

NOTE 1 The advantages of the triple-roll mill described in this part of ISO 8780 lie in the ease of handling of the equipment, the possibility of preparing adequate quantities of mill base for extensive evaluation procedures, the ease of cleaning and the possibility of correlating the results with those from production machinery. Unlike dispersing equipment for low-viscosity mill base formulations, a triple-roll mill of the kind described in this part of ISO 8780 permits the processing of mill base formulations within a wide range of high viscosities. Owing to this greater flexibility, precise specification of suitable mill base formulations is unnecessary.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 8780. At the time of publication,

the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 8780 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 787-24:1985, *General methods of test for pigments and extenders — Part 24: Determination of relative tinting strength of coloured pigments and relative scattering power of white pigments — Photometric methods.*

ISO 842:1984, *Raw materials for paints and varnishes — Sampling.*

ISO 1524:1983, *Paints and varnishes — Determination of fineness of grind.*

ISO 8780-1:1990, *Pigments and extenders — Methods of dispersion for assessment of dispersion characteristics — Part 1: Introduction.*

ISO 8781-1:1990, *Pigments and extenders — Methods of assessment of dispersion characteristics — Part 1: Assessment from the change in tinting strength of coloured pigments.*

ISO 8781-2:1990, *Pigments and extenders — Methods of assessment of dispersion characteristics — Part 2: Assessment from the change in fineness of grind.*

ISO 8781-3:1990, *Pigments and extenders — Methods of assessment of dispersion characteristics — Part 3: Assessment from the change in gloss.*