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International Standard



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Xylene for industrial use — Specification

Xylène à usage industriel — Spécifications

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 5280 was developed by Technical Committee ISO/TC 78, *Aromatic hydrocarbons*, and was circulated to the member bodies in October 1977.

It has been approved by the member bodies of the following countries :

Australia	Hungary	Portugal
Austria	India	Romania
Brazil	Korea, Rep. of	South Africa, Rep. of
Bulgaria	Mexico	Turkey
Czechoslovakia	Netherlands	United Kingdom
Egypt, Arab Rep. of	Philippines	USSR
Germany, F. R.	Poland	

The member bodies of the following countries expressed disapproval of the document on technical grounds :

France
Italy

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Xylene for industrial use — Specification

WARNING — Xylene is flammable and toxic by inhalation, ingestion or skin absorption.

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies requirements for xylene suitable for industrial purposes.

It is applicable to materials which consist essentially of xylene isomers [$C_6H_4.(CH_3)_2$] and ethylbenzene ($C_6H_5.C_2H_5$).

NOTE — For some purposes it may be desirable that the interested parties agree on the composition of the xylene.

2 REFERENCES

ISO 1523, *Paints and varnishes — Determination of flash-point — Closed cup method.*

ISO 2160, *Petroleum products — Corrosiveness to copper — Copper strip test.*

ISO 2211, *Liquid chemical products — Measurement of colour in Hazen units (platinum-cobalt scale).*

ISO 3679, *Paints and varnishes — Rapid test for determination of flash point.*

ISO 4626, *Volatile organic liquids — Determination of boiling range.*

ISO 5274, *Aromatic hydrocarbons — Acid-wash test.*

ISO 5275, *Aromatic hydrocarbons — Test for presence of mercaptans (thiols) — Doctor test.*

ISO 5276, *Aromatic hydrocarbons — Test for neutrality.*

ISO 5277, *Aromatic hydrocarbons — Determination of residue on evaporation.¹⁾*

ISO 5281, *Aromatic hydrocarbons — Determination of density at 20 °C.*

ISO 6271, *Clear liquids — Estimation of colour by the platinum-cobalt scale.¹⁾*

3 REQUIRED CHARACTERISTICS

The material shall conform to the characteristics shown in the table.

NOTE — Until such time as the test methods have been published as International Standards, the methods used shall be the subject of agreement between the interested parties.

4 SAMPLING²⁾

Take a representative sample of not less than 1 000 ml from the bulk of the material.

1) At present at the stage of draft.

2) The sampling of xylene and other aromatic hydrocarbons will form the subject of ISO 1995.

TABLE — Required characteristics

Characteristic	Requirement	Test method
Clarity	Clear and free from separated impurities	Visual inspection
Colour	Not darker than the 20 unit standard ¹⁾	ISO 2211 or 6271
Density at 20 °C	Not lower than 0,855 g/ml or higher than 0,870 g/ml	ISO 5281
Undissolved water at 20 °C	Absent	Visual inspection by transmitted light
Initial boiling point	Not lower than 137 °C	ISO 4626
Dry point	Not higher than 143 °C	ISO 4626
Acid-wash test	Acid layer not darker in colour than the standard solution containing 1,0 g of potassium dichromate in 1 000 ml of dilute acid solution	ISO 5274
Total sulphur content	Not greater than 10 mg/kg	A suitable method of test will form the subject of ISO 5282
Freedom from objectionable sulphur compounds	Not greater than a slight tarnish equivalent to the No. 1 copper strip	ISO 2160
Mercaptans (thiols)	Absent	ISO 5275
Neutrality	Neutral	ISO 5276
Residue on evaporation	Not greater than 5 mg/100 ml	ISO 5277
Flash point	If required, to be agreed between the interested parties	ISO 1523 or 3679

1) The strongest standard matching solution required is that with a colour of 50 units. Only 1 000 ml of the standard colorimetric solution need, therefore, be prepared.