

(PREVIEW)

Indian Standard

MINERAL INSULATING OILS — METHODS FOR THE DETERMINATION OF 2-FURFURAL AND RELATED COMPOUNDS

1 Scope

This International Standard specifies test methods for the analysis of 2-furfural and related furan compounds resulting from the degradation of cellulosic insulation and found in mineral insulating oil samples taken from electrical equipment.

2-furfural and related furan compounds dissolved in mineral oil are analysed by high performance liquid chromatography (HPLC). Prior to HPLC analysis, furan derivatives are extracted from the oil by use of a suitable extraction method such as liquid-liquid extraction (method A) or solid-phase separation on a silica cartridge (method B).

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication of this standard, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 475 : 1974, *Method of sampling liquid dielectrics*

IEC 567 : 1992, *Guide for the sampling of gases and of oil from oil-filled electrical equipment and for the analysis of free and dissolved gases*