

ISO 5773:2023-04 (E)

Textiles - Determination of components in flax fibres

Contents		Page
Foreword		iv
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Principle	1
5	Reagents	1
6	Apparatus	2
7	Test procedure	3
7.1	Preparation of standard solutions	3
7.1.1	Aqueous ammonium oxalate solutions	3
7.1.2	Aqueous sodium hydroxide solution	3
7.1.3	Ethanol solution of Hydrochloric acid	3
7.1.4	Standard stock solution of galacturonic acid	3
7.1.5	Ethanol solution of carbazole	3
7.1.6	Aqueous solution of Hydrochloric acid	3
7.1.7	DNS chromogenic solution	3
7.1.8	Standard stock solution of glucose	4
7.1.9	Aqueous sulfuric acid solution	4
7.1.10	Aqueous barium chloride solution	4
7.1.11	Anthrone solution in sulfuric acid	4
7.2	Sampling and preparation of test specimens	4
7.2.1	Sampling	4
7.2.2	Preparation of test specimen	4
7.3	Determination of fat and wax content	4
7.3.1	Extraction with acetone	4
7.3.2	Calculation	5
7.4	Determination of pectin content	5
7.4.1	Development of galacturonic acid standard curve	5
7.4.2	Extraction of pectin with aqueous ammonium oxalate	5
7.4.3	Precipitation of pectin	5
7.4.4	Preparation of the testing solution of pectin	6
7.4.5	Spectrophotometric testing	6
7.4.6	Calculation	6
7.5	Determination of hemicellulose content	6
7.5.1	Development of glucose standard curve	6
7.5.2	Hydrolysis and extraction of hemicellulose by hot hydrochloric acid	7
7.5.3	Spectrophotometric testing	7
7.5.4	Calculation	7
7.6	Determination of lignin content	7
7.6.1	Test specimen preparation	7
7.6.2	Calculation	8
7.7	Determination of cellulose content	8
7.7.1	Development of glucose standard curve	8
7.7.2	Extraction and hydrolysis of cellulose	8
7.7.3	Spectrophotometric testing	9

7.7.4	Calculation	9
8	Test report	9