This is a free page sample. Access the full version online.

nsai

I.S. 140: Part 2: 1987

IRISH STANDARD

SCHOOL FURNITURE
PART 2
PERFORMANCE REQUIREMENTS AND TESTS FOR CHAIRS FOR SCHOOLS

NATIONAL STANDARDS AUTHORITY OF IRELAND
DUBLIN 9
IRELAND

TELEX: 32501 TELEPHONE: (01) 370101

© IIRS 1987

Price Code L

This is a free page sample. Access the full version online.

This is a free page sample. Access the full version online.

CONTENTS

		Pag
Foreword		3
Declaration		5

CLAUSES

1.	Scope	6

SECTION ONE. GENERAL

2.	References	6
3.	Definitions	6
4.	Compliance with this specification	7
5.	Test Equipment	7
6.	Testing and inspection	9
7.	Marking and ordering	10

SECTION TWO. STRENGTH

8.	Requirements	11
9.	Moisture content and conditioning of wooden chairs	12
10.	Examination before and after testing	12
11.	Tests	12

SECTION THREE. STABILITY

12.	General	28
13.	Test procedures	28
14.	Testreport	29

APPENDIX

A.	Summary of tests and test levels	33
B.	Determination of seat and back loading positions	35
C.	Suggested minimum overturning forces for stability of all types of chairs according to their loaded seat heights	39
D.	Reference Standards	40

TABLES

A1.	Summary of Tests and Grades/Test Levels	33

This is a free page sample. Access the full version online.

FIGURES

1.	Seat static load test	13
2.	Back static load test	14
3.	Arm and wings sideways static load test	15
4.	Arm downwards static load test	16
5.	Seat fatigue test	16
6.	Back fatigue test	17
7a.	Leg forward static load test	19
7b.	Leg sideways static load test	19
8.	Seat impact test	20
9.	Back impact test	21
10.	Arm impact test	21
11.	Drop test	22
12.	Details of the naturalistically shaped standard seat loading pad (plan,side elevations, dimensions in mm)	24
13.	Details of the smaller seat loading pad	25
14.	Details of back loading pad	25
15.	Details of seat impacter	26
16.	Details of pendulum impact hammer	27
17.	Forward overbalancing and sideways overbalancing for chairs without arms	30
18.	Rearwards overbalancing	31
19.	Sideways overbalancing for chairs with arms	31
20.	Stools overbalancing - all directions	32
B1	Chair loading position template	36
B2	Loading surface curves of chair seat and back loading template assembly	37
B3	Position of chair loading position template on chairs and stools	38

This is a free page sample. Access the full version online.

FOREWORD

This specification is a revision of I.S. 140 : 1965 and it is now being published in three parts:

Part 1: Tables and Chairs for Schools.
Part 2: Performance requirements and tests for chairs for schools.
Part 3: Performance requirements and tests for tables for schools.

It is hoped to publish the three parts simultaneously.

Part 1 of this specification specifies the requirements for the functional dimensions, identification, materials, design and finish of tables and chairs for teaching and dining purposes and lecture and assembly halls in educational institutions. This Part 2 specifies the strength, durability and stability requirements for such chairs and has been prepared to provide assurance that chairs complying with it are sound and durable.

Where appropriate the test methods also apply to stools. Part 3 will cover similar requirements for tables for schools.

This part of the specification specifies objective criteria for strength, durability and stability of chairs which are based on the simulation of conditions of use. It requires that these chairs be capable of passing a number of specified tests for strength, durability and stability. The tests have a graded scale of severity which are designed to simulate conditions of use. Chairs tested to grade 4 (contract)+ are suitable for use in schools. Regular normal use is tested by 'functional loadings' that are designed to assess the stability and the fatigue strength of chairs under prolonged normal use. Occasional specially severe circumstances are tested by high and rapidly applied loadings that assess the ability of the chairs to withstand the occassional misuses and mishaps, termed acceptable misuse, that inevitably occur during the life of any seating.

The tests in this specification are based on various British standards and various drafts in course of preparation by the International Organisation for Standardisation. These are type tests and the results are only valid for articles of the particular type tested.

+ Note: Grade 5 is suitable for extra heavy duty.

This is a free page sample. Access the full version online.

In the case of designs not catered for in the test procedures, the test should be carried out as near as possible as described, and the points of deviation from the test procedure should be reported.

Tests carried out according to this specification are intended to demonstrate the ability of the item to give satisfactory service in its intended environment. It should be understood that such tests do not ensure that structural failure will not eventually occur as a result of habitual misuse or after an excessively long period of service.

SAI GLOBAL

This is a free preview. Purchase the entire publication at the link below:

Product Page

Looking for additional Standards? Visit Intertek Inform Infostore

Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation