

# ISO/TS 16840-12:2015-03 (E)

## Wheelchair seating - Part 12: Apparatus and method for cushion envelopment testing

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
Introduction .....		v
1	Scope .....	1
2	Normative references .....	1
3	Terms and definitions .....	1
4	Indenter construction .....	2
4.1	Materials .....	2
4.2	Tolerances and finishes .....	2
4.3	Indenter elements .....	3
4.3.1	Trochanter bar .....	3
4.3.2	Trochanter buttons .....	3
4.3.3	Bulbous indenter half .....	4
4.4	Indenter assembly .....	5
4.5	Sensor locations .....	6
4.5.1	General .....	6
4.5.2	Elevation1 .....	6
4.5.3	Elevation2 .....	7
4.5.4	Elevation3 .....	7
4.5.5	Elevation4 .....	7
5	Instrumentation hardware .....	8
5.1	Electronics .....	8
5.2	Loading equipment .....	8
6	Preparation of test cushion .....	8
6.1	Cushion adjustment .....	8
6.2	Preconditioning the cushion to the test environment .....	8
7	Envelopment test method .....	8
7.1	Rationale .....	8
7.2	Method .....	8
7.2.1	Setting the datum height for the indenter .....	8
7.2.2	Pre-conditioning the cushion .....	8
7.2.3	Measuring the seat cushion thickness .....	9
7.2.4	Load application and data collection .....	9
7.3	Calculations .....	10
8	Test report .....	11
Annex A (normative) Method adaptations for cushions that utilize offloading .....		13
Bibliography .....		14