

Schedule of Accreditation



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Trading As	MTS Limited
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Accreditation Standard	EN ISO/IEC 17025 T
Standard Version	2017
Date of award of accreditation	09/10/2000
Scope Classification	Construction materials testing
Scope Classification	Mechanical testing
Scope Classification	Biological and veterinary testing
Scope Classification	Chemical testing
Services available to the public ¹	Yes

¹ Refer to document on interpreting INAB Scopes of Accreditation

Sites from which accredited services are delivered		
(the detail of the accredited services delivered at each site are on the Scope of Accreditation)		
	Name	Address
1	Head Office	19 Kernanstown Industrial Estate, Carlow

Scope of Accreditation

Head Office

Biological and Veterinary Testing

Category: A

Biology/veterinary field - Tests	Test name	Technique	Matrix	Equipment	Std. reference
803 Culture of organisms in liquid or agar based culture media with visual or instrument monitoring for growth - .01 Culture of bacteria	Water Quality - Detection and enumeration of intestinal enterococci	Membrane Filtration Method	Waters - Environmental water, Waters - Industrial, Waters - Potable water, Waters - swimming pools & spas,	Membrane Filtration Unit Incubator	ISO 7899-2 2000
	Water Quality - Enumeration of Clostridium perfringens	Method using Membrane Filtration	Waters - Environmental water, Waters - Industrial, Waters - Potable water, Waters - swimming pools & spas	Membrane Filtration Unit Incubator	ISO 14189 2013
	Water Quality - Enumeration of Escherichia coli (E.Coli) and Coliform bacteria	Membrane filtration method for waters with low bacterial background flora	Waters - Environmental water, Waters - Industrial, Waters - Potable water, Waters - swimming pools & spas, Waters	Membrane Filtration Unit Incubator	ISO 9308-1 2014 +A1: 2016
820 Miscellaneous	Drinking Water Sample Collection	Sampling for biological contaminants: Total coliforms; E.Coli; Enterococci	Waters - Environmental water, Waters - Industrial, Waters - Potable water, Waters - swimming pools & spas	N/A	EPA Quick Guide to drinking water sample collection, 2nd Edition Sept 2016
	Water Quality - Sampling for microbiological analysis	Potable water from a tap	Waters - Environmental water, Waters - Industrial, Waters - Potable water, Waters	N/A	ISO 19458 2006 Clause 4.4.1
	Water Quality - Sampling.	Sampling Faucets	Waters - Environmental water, Waters - Industrial, Waters - Potable water, Waters	N/A	ISO 5667-5 2006 Guidance on sampling of drinking water from

					treatment works and piped distribution systems
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Head Office

Chemical Testing

Category: A

Chemistry Field - Tests	Test name	Analyte	Range of measurement	Matrix	Equipment/technique	Standard reference/SOP
766 Environmental testing (inc waters) - .05 Inorganic	Turbidity		0-2000 NTU	Potable Water	Turbidity Meter(TN-100)	APHA Standard Method for Turbidity 2130 (24th Edition) / SOP IHT005.11.1
767 Physical test/measurement - .01 pH	pH		4-10 Units	Potable Water	pH electrode (SensoDirect 150 Multimeter)	APHA Standard Method for pH 4500-H+ (24th Edition) / SOP IHT005.10.1
767 Physical test/measurement - .02 Conductivity	Conductivity		0-2000us/cm	Potable Water	Conductivity Probe (SensoDirect 150 Mutimeter)	APHA Standard Method for Conductivity 2510 (24th Edition) / SOP IHT005.12.1

Construction Materials Testing

Category: A

Construction material/product - Tests	Matrix/methodology (where applicable if not insert n/a)	Equipment/technique	Range of measurement (where applicable)	Standard reference/SOP
212 Concrete - 212.10 Curing Specimens for Strength Tests	n/a	Curing of Test Specimens in Laboratory		IS EN12390-2:2019
212 Concrete - 212.11 Compressive Strength Tests (Cubes and Cylinders)		Compressive strength of Moulded Specimens	Loads from 50 - 2000kN	EN12390-3 : 2019
		Determination of Compressive strength of hardened concrete cores	(Loads from 50-2000kN)	IS EN 12504-1: 2019 +AC2020
212 Concrete - 212.13 Density		Mass per Unit Volume of Hardened Concrete, Determination of Density		IS EN 12390-7 : 2019
216 Aggregates - .03 Sample reduction		Methods for reducing laboratory samples		EN932-2:1999
216 Aggregates - .04 Particle size distribution		Dry Sieving		IS EN 933 -1:2012
		Washing & Sieving		IS EN 933-1: 2012
216 Aggregates - .05 Flakiness index		Flakiness Index		IS EN 933-3 : 2012
216 Aggregates - .06 Shape index		Particle Length (Railway Ballast)		Documented In House Procedure: CD004/IHT001.06.1 (based on EN13450)
216 Aggregates - .07 Percent crushed and broken surfaces		Determination of the percentage of Crushed & Broken surfaces		IS EN 933-5: 1998 : Amd. 1: 2004
216 Aggregates - .09 Assessment of fines		Methylene Blue Test	0 to 2 mm fraction in fine aggregate	IS EN 933-9 + A1: 2013
			All-in aggregates	IS EN 933-9 + A1: 2013
216 Aggregates - .11 Microdeval co-efficient		Determination of Resistance to Wear		IS EN 1097-1 : 2011

216 Aggregates - .12 Railway ballast: Micro deval co-efficient	Determination of Resistance to Wear - Railway Ballast	IS EN 1097-1 : 2011 including Railway Ballast - EN13450 Annex E
216 Aggregates - .13 Resistance to fragmentation	Determination of Resistance to Fragmentation (Los Angeles Abrasion Value)	IS EN 1097-2 : 2020
216 Aggregates - .14 Railway ballast: Resistance to fragmentation	Determination of Resistance to Fragmentation (Los Angeles Abrasion Value) Railway Ballast	IS EN 1097-2 : 2020 - Including Railway Ballast - IS EN 13450 Annex C
216 Aggregates - .17 Water content	Determination of Water Content	IS EN1097-5: 2008
216 Aggregates - .18 Particle density and water absorption	Determination of Particle Density on a (i) saturated and surface-dried basis; (ii) oven dried basis; (iii) Apparent particle density; (iv) Water absorption	IS EN 1097-6:2013
216 Aggregates - .20 Polished stone value	Determination of Polished Stone Value	IS EN 1097-8 : 2020
216 Aggregates - .23 Magnesium sulphate	Magnesium Sulfate Test	IS EN 1367 -2:2009
216 Aggregates - .99 Other tests	Laboratory reference density and water content using vibrating hammer (Optimum Water Content)	IS EN13286-4: 2003
217 Bituminous materials - .02 Preparation of samples	Preparation of samples for determining Binder Content, Water Content & Grading	IS EN 12697-28: 2020
217 Bituminous materials - .03 Determination of dimension	Determination of Dimensions of a bituminous specimen	IS EN12697-29: 2020
217 Bituminous materials - .09 Hot Sand test for adhesivity	Hot Sand Test	IS EN 12697-37: 2003
217 Bituminous materials - .15 Binder content	Determination of Binder Content By Ignition Method	IS EN 12697 -39: 2020
217 Bituminous materials - .16 Binder content - difference	Determination of Binder Content by Pressure Filter method	IS EN 12697 -1: 2020
217 Bituminous materials - .17 Binder content - Recovery	Determination of Binder content by Rolling Bottle Method - Volume Calculation	IS EN 12697-1: 2020
217 Bituminous materials - .18 Particle Size distribution	Determination of Particle Size Distribution	IS EN 12697-2: 2015+A1:2019
217 Bituminous materials - .19 Maximum density	Determination of Maximum Density	IS EN 12697-5: 2018

217 Bituminous materials - .20 Affinity between aggregate and bitumen		Determination of the Affinity between Aggregate and Bitumen		IS EN12697-11: 2020: Clause 6
217 Bituminous materials - .28 Bulk density		Determination of Bulk density of Bituminous Specimens		IS EN 12697-6: 2020
217 Bituminous materials - .31 Voids content		Determination of Voids Characteristics of Bituminous Specimens		IS EN 12697-8: 2018
217 Bituminous materials - .33 Percentage refusal density (PRD)		Percentage Refusal Density (PRD), Vibratory Compaction		EN 12697-32: 2019
				EN 12697-9 : 2002
217 Bituminous materials - .40 Softening point		Softening Point	25 to 200°C	EN 1427: 2015
217 Bituminous materials - .49 Distillation		Determination of Residual Binder & Oil Distillate from Bitumen Emulsions by Distillation	Oil distillate % by mass	IS EN 1431: 2018
			Residue % by mass	IS EN 1431: 2018
217 Bituminous materials - .50 Needle penetration		Determination of Needle Penetration	0 to 350 x 0.1 mm @ 25°C	EN 1426: 2015
217 Bituminous materials - .51 Sieve test		Determination of residue on Sieving of bituminous emulsions	Residue on 0.500mm sieve	IS EN 1429: 2013
217 Bituminous materials - .56 Water content		Water Content		IS EN 1428: 2012
217 Bituminous materials - .57 Breaking value		Determination of Breaking Value of cationic bituminous emulsions		IS EN 13075-1: 2016
217 Bituminous materials - .58 Efflux time		Determination of Efflux Time using Redwood No.2 Viscometer		IS EN16345: 2012
218 Soils for Geotechnical Investigation & Testing: Lab Testing of Soils. Soils (Chemical Tests) - .01 Water content		Determination of Water Content		IS EN ISO 17892-1:2014
219 Soils for civil engineering purposes - .02 Moisture content		Determination of the Moisture Content		BS 1377 Part 2: 1990 Clause 3.2
219 Soils for civil engineering purposes - .04 Liquid limit		Determination of the Liquid Limit - Definitive method		BS1377 Part 2: 1990 Clause 4.3
		Determination of the Liquid Limit - One point method		BS 1377 Part 2: 1990 Clause 4.4

219 Soils for civil engineering purposes - .05 Plastic limit	Determination of the Plastic Limit		BS 1377 Part 2: 1990 Clause 5
219 Soils for civil engineering purposes - .06 Plasticity index	Determination of Liquid and Plastic Limits	4 Point Fall Cone Method	IS EN ISO 17892-12: 2018 +A1: 2021 &A2:2022
		4 point Fall Cone method	IS EN ISO 17892-12:2018
	Determination of the Plasticity Index		BS 1377 Part 2: 1990 Clause 5.4
219 Soils for civil engineering purposes - .10 Particle density	Determination of Particle Density - Gas Jar Method		BS 1377 Part 2: 1990 Clause 8.2
219 Soils for civil engineering purposes - .11 Particle size distribution	Determination of Particle Size Distribution	Sieving method (Wet & Dry)	IS EN ISO 17892-4:2016
	Determination of the Particle Size Distribution - Wet sieving method		BS 1377 Part 2: 1990 Clause 9.2
219 Soils for civil engineering purposes - .12 Uniformity coefficient	Uniformity Coefficient		BS 6100: 1992 Clause 2.2.1
219 Soils for civil engineering purposes - .13 Dry density/moisture content relationship	Optimum Moisture Content 4.5 kg rammer		BS 1377 Part 4: 1990 Section 3
	Optimum Moisture Content 2.5kg rammer		BS 1377 Part 4: 1990 Section 3
	Optimum Moisture Content Vibrating hammer		BS 1377 Part 4: 1990 Section 3
219 Soils for civil engineering purposes - .15 Moisture condition value (MCV)	Determination of the Moisture Condition Value (MCV)		BS 1377 Part 4: 1990 Clause 5
219 Soils for civil engineering purposes - .17 California bearing ratio	Determination of the CBR - 2.5kg Rammer		BS1377 Part 4: 1990 Section 7
	Determination of the CBR - 4.5kg Rammer		BS1377 Part 4: 1990 Section 7
	Determination of the CBR - Static compaction	Loads 0.4 to 50 kN	BS1377 Part 4: 1990 Section 7
	Determination of the CBR - Vibrating Hammer		BS1377 Part 4: 1990 Section 7

220 Highways/roads and other paved surfaces including airfields - .10 Slid/skid resistance - pendulum test		Method for Measurement of Slip/skid resistance of surface		IS EN 13036-4: 2011
223 Pedestrian Surfaces - .02 Slip Resistance-Pendulum Test-Wet & Dry surfaces		Dry Pedestrian surface	Dry	BS 7976-2: 2002 (+A1: 2013)
		Wet Pedestrian surface	Wet	BS 7976-2: 2002 (+A1: 2013)
227 Unbound & Hydraulically Bound Mixtures - .01 Laboratory reference density		Laboratory Reference Density & Water Content using Vibrating Hammer (Optimum Water Content)		IS EN 13286-4: 2021
229 Construction Products - .01 Dimensions		Determination of Dimensions of Masonry unit		EN 772-16:2011
229 Construction Products - .02 Compressive Strength		Determination of Compressive strength of Masonry Unit		EN 772-1: 2011
				IS 20 Part 1: 1987 Appendix D
				IS EN 772-1: 2011 +A1: 2015
229 Construction Products - .03 Water Absorption		Determination of Water Absorption of Masonry Units		EN 772-11: 2011
229 Construction Products - .10 Dry Bulk Density		Determination of net and gross Dry Density of Masonry Unit		EN 772-13: 2000
229 Construction Products - .21 Slip Resistance - pendulum tester		Natural Stone Test Methods - Determination of the Slip Resistance		IS EN 14231: 2003
229 Construction Products - .32 Flatness Deviation		Determination of Flatness of faces of masonry units		EN 772-20: 2000
229 Construction Products - .46 Moisture Expansion		Determination of moisture movement of masonry units		EN 772-14: 2002

Construction Materials Testing

Category: B

Construction material/product - Tests	Matrix/methodology (where applicable if not insert n/a)	Equipment/technique	Range of measurement (where applicable)	Standard reference/SOP
212 Concrete - 212.01 Sampling	n/a	Sampling - Spot sample and Composite sample		IS EN 12350-1: 2019
212 Concrete - 212.04 Workability		Testing Fresh Concrete - Slump Test		IS EN 12350-2: 2019
212 Concrete - 212.09 Making Specimens for Strength Tests		Making specimens for strength tests		IS EN 12390-2:2019
212 Concrete - 212.10 Curing Specimens for Strength Tests		Curing specimens for strength tests		IS EN 12390-2:2019
214 Soils (Site Tests) - .03 Moisture Condition Value		Determination of the Moisture Condition Value (MCV)		BS 1377: Part 4: 1990 Clause 5
214 Soils (Site Tests) - .04 In-situ Density Tests		Determination of In-situ density by Sand Replacement method		BS 1377: Part 9: 1990 Clause 2.2
		Determination of In-situ density using Nuclear Density Gauge (NDG)		BS 1377: Part 9:1990 Section 2.5
214 Soils (Site Tests) - .06 In-situ Vertical Deformation and Strength Tests (PLT)		Plate bearing test including conversion to California Bearing Ratio (CBR) up to 1.25mm deflection		Documented In House Procedure: CD004/IHT001.01.2 based on BS1377: Part 9-1990 (CBR calculation using NRA DMRB Vol 7, Section 2, Part 2A HD 25-26/10)
214 Soils (Site Tests) - .07 Equivalent CBR Value determined from PLT & DCP Data				Documented In House Procedure: CD004/IHT001.01.2 based on BS1377: Part 9-1990 (CBR calculation using NRA DMRB Vol 7, Section 2, Part 2A HD 25-26/10)
216 Aggregates - .01 sampling		Sampling of Aggregates		EN 932 -1: 1997
217 Bituminous materials - .01 Sampling		Sampling of Bituminous Mixtures		IS EN 12697-27: 2017

217 Bituminous materials - .37 In situ density	Determination of In-situ density using Nuclear Density Gauge (NDG)		Documented In House Procedure: CD004/IHT003.01.3 (based on BS594987:2015)
219 Soils for civil engineering purposes - .01 Sampling	Sampling of soils		Documented In House Procedure: CD004/IHT001.02.1
220 Highways/roads and other paved surfaces including airfields - .06 Pavement surface macrotexture depth	Measurement of Pavement Surface Macrotexture by Volumetric Patch method	Using Glass beads	IS EN 13036-1: 2010
220 Highways/roads and other paved surfaces including airfields - .07 Surface regularity	Surface Regularity by Rolling Straight Edge		Documented In House Procedure: CD004/IHT003.03.1 based on TRL SR 290
220 Highways/roads and other paved surfaces including airfields - .10 Slid/skid resistance - pendulum test	Method for Measurement of Slip/skid resistance of surface		IS EN 13036-4: 2011
223 Pedestrian Surfaces - .02 Slip Resistance-Pendulum Test- Wet & Dry surfaces	Pendulum Test - Dry Pedestrian surface	Dry	BS 7976-2: 2002 (+A1: 2013)
	Pendulum Test - Wet Pedestrian surface	Wet	BS 7976-2: 2002 (+A1: 2013)
229 Construction Products - .21 Slip Resistance - pendulum tester	Natural Stone Test Methods - Determination of the Slip Resistance		IS EN 14231: 2003

Mechanical Testing

Category: A

Product categories - Tests	Test detail	Product detail	Range of Measurement	Equipment/Technique	Std. Ref & SOP
1129 Plastic and related products - .11 Tension tests	Determination of tensile strength and failure mode of test pieces from butt-fused joint	Plastics pipes and fittings	1-50kN	Proline Tensile / Compression testing machine	ISO 13953: 2001 +A1: 2020
1129 Plastic and related products - .12 Tear tests	Decohesion tear test of polyethylene (PE) saddle fusion joints		1-50kN	Proline Tensile / Compression testing machine	ISO 13956: 2010
	Peel decohesion test for Polyethylene (PE) electrofusion assemblies		1-50kN	Proline Tensile / Compression testing machine	ISO 13954: 1997 +A1: 2020
1129 Plastic and related products - .20 Compression tests	Crushing decohesion test for polyethylene (PE) electrofusion assemblies	Plastics pipes and fitting	1-50kN	Proline Tensile / Compression testing machine	ISO 13955: 1997