


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

 <p style="text-align: center;">UKAS TESTING</p> <p style="text-align: center;">4559</p> <p style="text-align: center;">Accredited to ISO/IEC 17025:2005</p>	<h3 style="margin: 0;">AI Futtaim Exova LLC</h3> <p style="margin: 5px 0;">Issue No: 007 Issue date: 16 November 2011</p>	
	<p>AI Futtaim Exova LLC PO Box 34924 Dubai United Arab Emirates</p>	<p>Contact: Mr R Summers Tel: +971 4 8851001 Fax: +971 4 8854004 E-Mail: middle.east@exova.com Website: www.exova.com</p>
<p>Testing performed by the Organisation at the locations specified below</p>		

AI Futtaim Exova LLC is accredited for a flexible scope that enables them to establish site laboratories to conduct the activities detailed below under Construction Materials Testing and Site Sampling, in accordance with their documented in-house procedure: SLP 4.16

Current locations covered by the scope of accreditation:

Location details	Activity	Location code
<p>Address AI Futtaim Exova LLC Plot 598-221 Dubai Investments Park Jebel Ali Dubai United Arab Emirates</p> <p>Postal Address AI Futtaim Exova LLC PO Box 34924 Dubai United Arab Emirates</p>	<p>Local contact Mr R Summers</p> <p>Tel: +971-4-8851001 Fax: +971-4-8854004 E-Mail: middle.east@exova.com</p>	<p>A</p>
<p>Address AI Futtaim Exova LLC Cladding Division Plot 597-451 Dubai Investments Park Jebel Ali Dubai United Arab Emirates</p> <p>Postal Address AI Futtaim Exova LLC Cladding Division PO Box 34924 Dubai United Arab Emirates</p>	<p>Local contact Mr M Kumar</p> <p>Tel: +971-4-8850221 Fax: +971-4-8851892 E-Mail: middle.east@exova.com</p>	<p>C</p>



4559

Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

AI Futtaim Exova LLC

Issue No: 007 Issue date: 16 November 2011

Testing performed by the Organisation at the locations specified

<p>Address AI Futtaim Exova LLC Acoustics Laboratory Dubai Investments Park Jebel Ali Dubai United Arab Emirates</p> <p>Postal Address AI Futtaim Exova LLC Acoustics Laboratory PO Box 34924 Dubai United Arab Emirates</p>	<p>Local contact Mr P Cope</p> <p>Tel: +971-4-8850221 Fax: +971-4-8851892 E-Mail: middle.east@exova.com</p>	<p>Laboratory measurement of airborne sound insulation of a building elements _ Block / partition walls, doors, windows, facades</p>	<p>D</p>
<p>Address Commercial and Industrial Premises</p>	<p>Cladding & Curtain Walling Systems - Physical tests Aggregates - Sampling Concrete - Sampling Soils - Sampling</p>	<p>C & I</p>	



4559

Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

AI Futtaim Exova LLC

Issue No: 007 Issue date: 16 November 2011

Testing performed by the Organisation at the locations specified

Contents

Accredited Activity	Page of Schedule
Analytical Chemical Analysis	4
Building Performance Testing	11
Building Performance Site Testing	11
Construction Materials Testing	12
Metallurgical and Mechanical	14
Site Sampling and Testing	16



4559
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

AI Futtaim Exova LLC

Issue No: 007 Issue date: 16 November 2011

Testing performed by the Organisation at the locations specified

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
Analytical Chemical Analysis			
LEACHATES WATERS - raw and potable WATERS - effluent, leachate and groundwater WASTE WATERS - untreated and treated domestic and industrial waste water SALINE WATERS	Determination of "total" metals including: Aluminium Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Cobalt Copper Chromium Iron Lead Lithium Magnesium Manganese Molybdenum Nickel Phosphorus Potassium Selenium Silicon Sodium Silver Strontium Thallium Tin Titanium Vanadium Zinc	USEPA 3030 and 3120B/ Documented In-house method CHEM 1006 DXB using ICP-OES techniques	A
Potable Waters	Bromate	USEPA 300.1/ Documented In-house method CHEM 3020 DXB by ion chromatography	A
	Cyanides in potable waters (Free Cyanide, total Cyanide and thiocyanate)	EPA9014 Documented In-house method CHEM 3023 DXB by Skalar	A



4559
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

AI Futtain Exova LLC

Issue No: 007 Issue date: 16 November 2011

Testing performed by the Organisation at the locations specified

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
Potable Waters cont'd	Organo Chlorine Pesticides (OCP) alpha BHC beta BHC Aldrin Heptachlor Heptachlor epoxide Alpha Chlordane Gamma Chlordane Alpha Endosulfan p,p'-DDE Dieldrin Endrin p,p'-DDD beta Endosulfan Endrin aldehyde Endosulfan sulphate p,p'-DDT Endrin ketone Methoxychlor	EPA 608 Documented In-house method CHEM 4313 DXB by GC-ECD	A
Waters	Volatile Organic Compounds (VOC's) Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride trans-1,2 Dichloroethene 1,1,-Dichloroethane cis-1,2,-Dichloroethene 2,2,-Dichloropropane Bromochloromethane Chloroform Carbon tetrachloride 1,1,1-Trichloroethane 1,1-Dichloropropene Benzene	EPA 5021A Documented In-house method CHEM 4051 DXB by GC-MS	A



4559

Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

AI Futtaim Exova LLC

Issue No: 007 Issue date: 16 November 2011

Testing performed by the Organisation at the locations specified

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
Waters (cont'd)	Volatile Organic Compounds (VOC's) (cont'd) 1,2-Dichloroethane Trichloroethene 1,2-Dichloropropane Bromodichloromethane Dibromomethane cis-1,3-Dichloropropene Toluene trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Chlorodibromomethane Ethylene Dibromide 1,3-Dichloropropane Ethylbenzene 1,1,1,2-Tetrachloroethane Chlorobenzene m,p--Xylene o-Xylene Bromoform Styrene Isopropylbenzene Bromobenzene n-Propylbenzene 1,1,2,2-Tetrachloroethane 1,2,3-Trichloropropane 1,3,5-trimethylbenzene 2-Chlorotoluene 4-Chlorotoluene tert-Butylbenzene 1,2,4-Trimethylbenzene sec-Butylbenzene 4-Isopropyltoluene 1,3-Dichlorobenzene 1,4-Dichlorobenzene n-Butylbenzene 1,2-Dichlorobenzene 1,2-Dibromo-3-chloropropane 1,2,4-Trichlorobenzene Hexachlorobutadiene Naphthalene 1,2,3-Trichlorobenzene	EPA 5021A Documented In-house method CHEM 4051 DXB by GC-MS	A



4559
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

AI Futtaim Exova LLC

Issue No: 007 Issue date: 16 November 2011

Testing performed by the Organisation at the locations specified

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
Waters (cont'd)	Polycyclic Aromatic Hydrocarbon (PAH) Naphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoroanthene Pyrene Cyclopenta(cd)pyrene Benzo[a]anthracene Chrysene Benzo[b]fluoranthene Benzo[k]fluoranthene Benzo[e]pyrene Benzo[a]pyrene Indeno(1,2,3-c,d)pyrene Dibenz[a,h]anthracene Benzo[g,h,i] perylene Anthanthrene	EPA 625 Documented In-house method CHEM 4413 DXB by GC-MS	A
	Extractable Petroleum Hydrocarbons (EPH) [(Total Petroleum Hydrocarbons (TPH)]	EPA 8015 Documented In-house method CHEM 4133 DXB by GC-FID	A
	Benzene, Toluene, Ethyl Benzene o-Xylenes p-Xylenes m-Xylenes (BTEX) and Methyl Tertiary Butyl Ether (MTBE)	EPA 5021A Documented In-house method CHEM 4123 DXB by GC-MS	A
	Volatile Petroleum Hydrocarbons C5 to C10 (VPH) Benzene, Toluene, Ethyl Benzene o-Xylenes p-Xylenes m-Xylenes (BTEX)	EPA 8015M Documented In-house method CHEM 4113 DXB by GC-FID	A



4559
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

AI Futtaim Exova LLC

Issue No: 007 Issue date: 16 November 2011

Testing performed by the Organisation at the locations specified

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
Soils & Sand Matrices	Volatile Organic Compounds (VOC's) Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride trans-1,2 Dichloroethene 1,1,-Dichloroethane cis-1,2,-Dichloroethene 2,2,-Dichloropropane Bromochloromethane Chloroform Carbon tetrachloride 1,1,1-Trichloroethane 1,1-Dichloropropene Benzene 1,2-Dichloroethane Trichloroethene 1,2-Dichloropropane Bromodichloromethane Dibromomethane cis-1,3-Dichloropropene Toluene trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Chlorodibromomethane Ethylene Dibromide 1,3-Dichloropropane Ethylbenzene 1,1,1,2-Tetrachloroethane Chlorobenzene m,p--Xylene o-Xylene Bromoform Styrene Isopropylbenzene Bromobenzene n-Propylbenzene 1,1,2,2-Tetrachloroethane 1,2,3-Trichloropropane 1,3,5-trimethylbenzene	EPA 8260B Documented In-house method CHEM 4051 DXB by GC-MS	A



4559
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

AI Futtaim Exova LLC

Issue No: 007 Issue date: 16 November 2011

Testing performed by the Organisation at the locations specified

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
Soils and Sand Matrices (cont'd)	Volatile Organic Compounds (VOC's) 2-Chlorotoluene 4-Chlorotoluene tert-Butylbenzene 1,2,4-Trimethylbenzene sec-Butylbenzene 4-Isopropyltoluene 1,3-Dichlorobenzene 1,4-Dichlorobenzene n-Butylbenzene 1,2-Dichlorobenzene 1,2-Dibromo-3-chloropropane 1,2,4-Trichlorobenzene Hexachlorobutadiene Naphthalene 1,2,3-Trichlorobenzene	EPA 8260B Documented In-house method CHEM 4051 DXB by GC-MS	A
	Polycyclic Aromatic Hydrocarbon (PAH) Naphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoroanthene Pyrene Cyclopenta(cd)pyrene Benzo[a]anthracene Chrysene Benzo[b]fluoranthene Benzo[k]fluoranthene Benzo[e]pyrene Benzo[a]pyrene Indeno(1,2,3-c,d)pyrene Dibenz[a,h]anthracene Benzo[g,h,i] perylene Anthanthrene	EPA 8270C Documented In-house method CHEM 4413 DXB by GC-MS	A
	Extractable Petroleum Hydrocarbons (EPH) [(Total Petroleum Hydrocarbons (TPH))]	EPA 8015 Documented In-house method CHEM 4133 DXB by GC-FID	A



4559
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

AI Futtain Exova LLC

Issue No: 007 Issue date: 16 November 2011

Testing performed by the Organisation at the locations specified

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
Soils and Sand Matrices (cont'd)	Benzene, Toluene, Ethyl Benzene o-Xylenes p-Xylenes m-Xylenes (BTEX) and Methyl Tertiary Butyl Ether (MTBE)	EPA 8260B Documented In-house method CHEM 4123 DXB by GC-MS	A
	Volatile Petroleum Hydrocarbons C5 to C10 (VPH) Benzene, Toluene, Ethyl Benzene o-Xylenes p-Xylenes m-Xylenes (BTEX)	EPA 8015 Documented In-house method CHEM 4113 DXB by GC-FID	A
Potable and Saline Waters	Determination of Anions including: Nitrite Nitrate Ammonia Ortho-Phosphate	EPA 353.2 EPA 350.1 EPA 365.1 Documented In-house method CHEM 3022 DXB by Skalar FIA	A
Potable and Saline Waters, Soils and Sand Matrices)	Determination of Anions including: Fluoride Chloride Bromide Nitrite Nitrate Sulphate Ortho-Phosphate	EPA 300 Documented In-house method CHEM 3022B DXB by Ion Chromatography	A
SEDIMENTS SLUDGES SOILS	Determination of "total" metals including: Arsenic Antimony Barium Cadmium Cobalt Copper Chromium Iron Lead Manganese Nickel Phosphorus Selenium Vanadium Zinc	Documented In-house Method CHEM 1012 by ICP-OES	A
End of Section			



4559
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

AI Futtain Exova LLC

Issue No: 007 Issue date: 16 November 2011

Testing performed by the Organisation at the locations specified

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
Building Performance Testing			
WINDOWS, DOORS and CURTAIN WALLS	Rate of air leakage	ASTM E283-04	C
	Wind resistance	ASTM E330-02	C
	Static water penetration	ASTM E331-00	C
	Dynamic water penetration	AMMA 501.1:2005	C
	Hose test	AMMA 501.2:2009	C
BUILDING ELEMENTS Separating Elements including block / partition walls, doors, windows and facade constructions	Acoustic Test Laboratory measurements of airborne sound insulation of building elements The property measured is the Sound Reduction Index	BS EN ISO 140-3:1995 ISO 717-1:1996 AS1191-2002 ASTM E90-09	D
End of Section			
Building Performance Site Testing			
WINDOWS AND DOORS	Hose test	AMMA 501.2:2009	C & I
	Air leakage	ASTM E783-02(2010)	C & I
WINDOWS, SKYLIGHTS, DOORS and CURTAIN WALLS	Water penetration	ASTM E1105-00(2008)	C & I
End of Section			



4559
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

AI Futtain Exova LLC

Issue No: 007 Issue date: 16 November 2011

Testing performed by the Organisation at the locations specified

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
Construction Materials Testing			
AGGREGATES	Particle density and water absorption for aggregate 10mm nominal size and smaller	BS 812:Part 2:1995	A
	Particle density and water absorption for aggregate all larger than 10mm	BS 812:Part 2:1995	A
	Particle density and water absorption for aggregate between 40mm and 5mm	BS 812:Part 2:1995	A
	Particle size distribution - washing and sieving	BS 812:Part 103 Section 103-1: 1985	A
	Particle size distribution - dry sieving	BS 812:Part 103 Section 103-1: 1985	A
	Flakiness index	BS 812:Part 105:Section 105.1: 1989	A
	Elongation index	BS 812:Part 105:Section 105.2: 1990	A
	Shell content	BS 812:Part 106:1985	A
	Moisture content - oven dry method	BS 812:Part 109:1990	A
	Clay lumps and friable particles in aggregates	ASTM C142-97(04)	A
CONCRETE- fresh	Making and curing cylindrical specimens in the laboratory	ASTM C192-07	A
CONCRETE - hardened	Density	BS 1881:Part 114:1983	A
	Compressive strength of cubes - including curing (Forces from 30 to 3000 kN)	BS 1881:Part 116:1983 BS 1881:Part 111:1983	A
	Water absorption	BS 1881:Part 122:1983	A



4559
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

AI Futtain Exova LLC

Issue No: 007 Issue date: 16 November 2011

Testing performed by the Organisation at the locations specified

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
CONCRETE – hardened (cont'd)	Initial surface absorption	BS 1881 Part 208:1996	A
	Shape and dimension of specimens	BS EN 12390-1: 2000	A
	Compressive strength of cubes - including curing (Forces from 30 to 3000 kN)	BS EN 12390-2: 2009 BS EN 12390-3: 2009	A
	Density	BS EN 12390-7: 2009	A
	Depth of penetration of water under pressure	BS EN 12390-8: 2009	A
	Compressive strength of cores (Forces from 60 to 3000kN)	BS EN 12504-1:2009	A
	Compressive strength of cylindrical specimens – including curing (Forces from 60 to 3000kN)	ASTM C39-10	A
	Density	ASTM C39-10	A
	Rapid chloride permeability	ASTM C1202-10	A
	SOILS for civil engineering purposes	Moisture content - oven drying method	BS 1377:Part 2:1990
Particle size distribution - wet sieving		BS 1377:Part 2:1990	A
Particle size distribution - dry sieving		BS 1377:Part 2:1990	A
Dry density/moisture content relationship (2.5 kg rammer)		BS 1377:Part 4:1990	A
Dry density/moisture content relationship (4.5 kg rammer)		BS 1377:Part 4:1990	A
CBR (California Bearing Ratio) of laboratory-compacted soils (Forces from 2 to 40kN)		BS 1377:Part 4:1990	A
End of Section			



4559
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

AI Futtain Exova LLC

Issue No: 007 Issue date: 16 November 2011

Testing performed by the Organisation at the locations specified

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
Metallurgical and Mechanical			
Iron, Steels and other Ferrous Metals	Vickers (HV5 and HV10)	BS EN ISO 6507-1:2005 ASTM E384-10	A
	Charpy impact (in the temperature range 77K to ambient)	ASTM E23-07a ASTM A370-11	A
	Tensile at ambient temperature (forces up to 2000 kN)	BS EN ISO 6892-1:2009 ASTM E8/E8M-09 ASTM A370-11 API 5L 44 th Edition 2007	A
	Phase volume fraction	ASTM E562-08	A
	Grain Size	ASTM E112-96(2004)	A
	Inclusion Content	ASTM E45-10 Method D	A
	Microstructural Assessment	DIHM E-E-OP-X-ME-X-MD001	A
Carbon steel bars for the reinforcement of concrete	Bend	BS 4449:1988 (withdrawn) ASTM A615/A615M-09b	A
	Rebend	BS 4449:1997 Amd't1 (withdrawn) BS 4449:2005 +A2:2009	A
	Tensile	BS 4449:1997 Amd't1 (withdrawn) BS 4449: 2005 +A2:2009 ASTM A615/A615M-09b	A



4559

Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

AI Futtaim Exova LLC

Issue No: 007 Issue date: 16 November 2011

Testing performed by the Organisation at the locations specified

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
Weldments	Bend, Fillet weld fracture, Hardness, Impact, Nick-break, Tensile, Macro- and Micro-examination in accordance with specific welding codes	BS EN 287: Part 1:2004 BS EN 875:1995 BS EN 895:1995 BS EN ISO 5173:2010 BS EN 1043-1:1996 BS EN 1320:1997 BS EN 1321:1997 BS EN ISO 9606-2:2004 BS EN ISO 15614-1:2004 BS EN ISO 15614-2 :2005 AWS D1.1/D1.1M-2008 ASTM E407-07 API 1104-20 th edition. 2005 ASME IX-10 BS 4515-1:2004 BS 4515-2:1999 BS 7448:Part 2:1997 (superseded)	A
End of Section			



4559
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

AI Futtaim Exova LLC

Issue No: 007 Issue date: 16 November 2011

Testing performed by the Organisation at the locations specified

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
Site Sampling and Testing			
AGGREGATES	Sampling coarse, fine and all-in aggregates - from heaps	BS 812:Part 102:1989	C & I
CONCRETE- fresh	Slump	BS 1881:Part 102:1983	C & I
	Air content – method B	BS 1881:Part 106:1983	C & I
	Sampling fresh concrete on site	ASTM C172-08	C & I
	Density	ASTM C138-08	C & I
	Temperature	ASTM C1064/C1064M-08	C & I
	Slump flow	ASTM C1611/C1611M-05	C & I
CONCRETE - hardened	Making test cubes	BS 1881:Part 108:1983	C & I
SOILS for civil engineering purposes	In-situ density – sand replacement method (large pouring cylinder)	BS 1377:Part 9:1990	C & I
	In-situ density - nuclear method	BS 1377:Part 9:1990	C & I
	In-situ moisture density - nuclear method	BS 1377:Part 9:1990	C & I
END			