

DAP Deutsches Akkreditierungssystem Prüfwesen GmbH

Signatory to the Multilateral Agreement of EA for Mutual Recognition  
and to the Mutual Recognition Arrangement of ILAC

represented in the

Deutscher AkkreditierungsRat



Accreditation

The DAP Deutsches Akkreditierungssystem Prüfwesen GmbH herewith confirms that the

**International Goods Inspection Co.  
(I.G.I.)**

No. 314 Motahari Ave.  
15875-3619 Tehran  
IRAN

is competent under the terms of DIN EN ISO/IEC 17025:2005 to carry out tests in the fields of

**food testing of raw sugar, sugar and sugar products; chemical testing of metals  
and metal alloys; metals in water; optical emission spectroscopy of low and  
high alloy steels and non-ferrous alloys; physical, mechanical-technological  
and metallographic testing of metals**

in accordance with the test methods listed in the annex. The annex forms part of the certificate  
and comprises 5 pages.

The accreditation is valid from 2009-04-16 to 2014-04-15.

DAR registration number: **DAP-PL-4299.00**

Berlin, 2009-04-16

Univ.-Prof. Dr.-Ing. habil. K. Ziegler  
Managing Director  
DAP Deutsches Akkreditierungssystem  
Prüfwesen GmbH

DAP Deutsches Akkreditierungssystem Prüfwesen GmbH (hereinafter referred to as DAP), is signatory to the Multilateral Agreement for Testing Laboratories (MLA) of European co-operation for Accreditation (EA) and to the Mutual Recognition Arrangement (MRA) of International Laboratory Accreditation Co-operation (ILAC). For testing laboratories, EA concluded further bilateral agreements for mutual recognition.

The signatories to these agreements of the following countries mutually recognise their accreditations of testing laboratories:

**Argentina – Australia – Austria – Belgium – Brazil – Canada – People's Republic of China – Costa Rica – Cuba – Czech Republic – Denmark – Egypt – Estonia – Finland – France – Germany – Greece – Guatemala – Hong Kong, China – India – Indonesia – Ireland – Israel – Italy – Japan – Republic of Korea – Latvia – Lithuania – Malaysia – Malta – Mexico – The Netherlands – New Zealand – Norway – Philippines – Poland – Portugal – Romania – Singapore – Slovakia – Slovenia – South Africa – Spain – Sweden – Switzerland – Chinese Taipei – Thailand – Turkey – Tunisia – United Kingdom – USA – Vietnam.**

The up-to-date status of membership can be retrieved from the respective website:

EA - <http://www.european-accreditation.org>

ILAC - <http://www.ilac.org>

This accreditation has been awarded on the basis of an assessment and pursuant to the contract concluded with DAP with respect to the accreditation of a testing laboratory in accordance with the rules and procedures of the German Accreditation System in conformity with the Standards DIN EN ISO/IEC 17025 and DIN EN ISO/IEC 17011.

The requirements in terms of materials and personnel as specified in DIN EN ISO/IEC 17025 for the specific testing fields indicated in the accreditation certificate, as well as for the procedures described in the annex to the accreditation certificate, have been met.

Details of the scope of the accreditation (testing fields, procedures and specifications) are given in the annex to this accreditation certificate.

The annex and the documents submitted in connection with the accreditation are deemed to form an integral part of it. Any amendments are to be made in writing.

The accreditation is awarded subject to revocation at any time due to the fundamental change or lapse of any conditions defined in the agreement and in the annex to this accreditation certificate.

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Accreditation certificates and annexes are not to be disseminated in any form other than the present one. The publication of extracts is subject to approval by DAP.

# DAP Deutsches Akkreditierungssystem Prüfwesen GmbH

## Annex to the Accreditation Certificate DAP-PL-4299.00 Accreditation based on DIN EN ISO/IEC 17025:2005

Period of validity: 2009-04-16 to 2014-04-15

Holder of the certificate: **International Goods Inspection Co.  
(I.G.I.)**

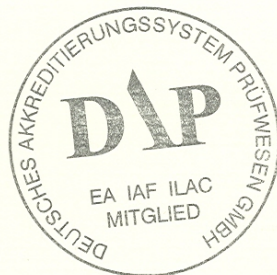
No. 314 Motahari Ave.,  
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Tests in the areas: **food testing of raw sugar, sugar and sugar products;  
chemical testing of metals and metal alloys;  
metals in water;  
optical emission spectroscopy of low and high alloy  
steels and non-ferrous alloys;  
physical, mechanical-technological and metallographic  
testing of metals**

abbreviations used: see last page

### 1 Food Testing

ICUMSA GS1/2/3/9-1 (2007) 2007-02	The Determination of the Polarization of Raw Sugar by Polarimetry - Official
ICUMSA GS1/3-7 (2002) 2003-08	Determination of the Solution Colour of Raw Sugars, Brown Sugars and Coloured Syrups at ph 7.0 - Official
ICUMSA GS1/3/4/7/8-13 (1994) 1994-04	The Determination of Conductivity Ash in Raw Sugar, Brown Sugar, Juice, Syrup and Molasses - Official
ICUMSA GS2/1/7-33 (2005) 2005-03	The Determination of Sulphite by the Rosaniline Colorimetric Method in White Sugar - Official
ICUMSA GS2/1/3/9-15 (2007) 2007-03	The Determination of Sugar Moisture by Loss on Drying - Official



## Annex to the Accreditation Certificate DAP-PL-4299.00

ICUMSA GS2/3-10 (2007) 2007-04	The Determination of White Sugar Solution Colour - Official
ICUMSA GS2-13 (1994) 1994-03	The Instrumental Determination of the Reflectance of White Sugar - Tentative
ICUMSA GS2/3-17 (2002) 2003-06	The Determination of Conductivity Ash in Refined Sugar Products - Official
ICUMSA GS2/3-43 (1994) 1994-04	The Determination of the Total Mesophilic Bacteria Count in Refined Sugar Products by the Pour Plate Method - Official
ICUMSA GS2/3-47 (1998) 2003-08	The Determination of Yeast and Moulds in Refined Sugar Products by the Pour Plate Method or Membrane Filter Method - Official
ICUMSA GS4/3-13 (2007) 2007-03	The Determination of Refractometric Dry Substance (RDS%) of Molasses and Very Pure Syrups (Liquid Sugars) - Accepted

## 2 Chemistry Testing

### 2.1 Titrimetric Method

BS EN 888 2004-12	Chemicals used for treatment of water intended for human consumption - Iron(III)-chloride B. 1. Determination of Iron(III)-chloride B. 1.1 Total Iron B. 1.2 Determination of Iron(II) B. 1.3 Determination of Iron(III)
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### 2.2 Gravimetric Methods

ASTM E35-88 2002-01	Standard Test Methods for Chemical Analysis of Magnesium and Magnesium Alloys Section 99 Silicon by the Perchloric Acid (Gravimetric) Test Method <i>(Withdrawn 2008, this Test Method is used on agreement with the customer)</i>
ASTM E478-08 2008-12	Standard Test Methods for Chemical Analysis of Copper Alloys Section 54 Nickel by the Dimethylglyoxime Gravimetric Test Method [4 to 50 %]
BS EN 888 2004-12	Chemicals used for treatment of water intended for human consumption - Iron(III)-chloride B. 3. Determination of Insoluble Matters



### 2.3 Electrogravimetric Methods

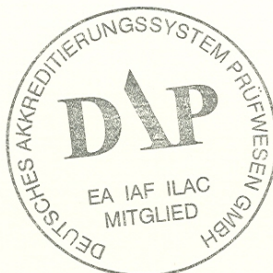
ASTM E118-89 2004-06	Standard Test Methods for Chemical Analysis of Copper-Chromium Alloys Section 8 Copper by the Electrolytic Method
ASTM E106-83 2004-06	Standard Test Methods for Chemical Analysis of Copper-Beryllium Alloys Section 8 Copper by the Electrolytic Method

### 2.4 Ultraviolet-Visible Spectrometry Methods

ASTM E34-94 2002-01	Standard Test Methods for Chemical Analysis of Aluminium and Aluminium-Base Alloys Section 73 Iron by the 1,10-Phenanthroline (Photometric) Test Method
ASTM E106-83 2004-06	Standard Test Methods for Chemical Analysis of Copper-Beryllium Alloys Section 45 Iron by the Thiocyanate-Photometric Method

### 2.5 Atomic Absorption Spectrometry Methods

BS EN 888 2004-12	Chemicals used for treatment of water intended for human consumption. Iron(III) -chloride Chapter B.2 Determination of Manganese
ASTM E478-08 2008-12	Standard Test Methods for Chemical Analysis of Copper Alloys Section 78 Zinc by Atomic Spectrometry [0.2 to 2 %] Section 89 Lead by the Atomic Absorption Test Method [0.002 to 15 %]
ASTM E536-08 2008-03	Standard Test Methods for Chemical Analysis of Zinc and Zinc Alloys Section 18 Aluminium, Cadmium, Copper, Iron, Lead, and Magnesium by the Atomic Absorption Method



## 2.6 Spark Emission Quantometry Methods

LW-235  
2008-03                      Instruction for Spark Emission Spectrometry Determination of Aluminium and Aluminium Alloys, Iron and Iron alloys, Copper and copper alloys

**These Guidelines are used in Combination with Spark Emission Quantometry Methods:**

<p>ASTM E415-08 2008-06</p>	<p><i>Standard Test Method for Atomic Emission Vacuum Spectrometric Analysis of Carbon and Low-Alloy Steel</i></p>
<p>ARL-3460 Manual 1988</p>	<p><i>Operation guideline of Aluminium base samples by quantometry method</i></p>
<p>ARL-3460 Manual 1988</p>	<p><i>Operation guideline of Copper base samples by quantometry method</i></p>
<p>ARL-3460 Manual 1988</p>	<p><i>Operation guideline of Iron base samples by quantometry method</i></p>

## 3 Metallurgy Testing

ISO 6892  
1998-03                      Metallic materials - Tensile testing at ambient temperature

DIN EN 10002-1  
2001-12                      Metallic materials - Tensile testing - Part 1: Method of testing at ambient temperature

ASTM A247-06  
2006-11                      Standard Test Method for Evaluating the Microstructure of Graphite in Iron Castings

ASTM A370-08b  
2008-10                      Standard Test Methods and Definitions for Mechanical Testing of Steel Products  
Section 5: Tension Test

ASTM B487-85  
2007-03                      Standard Test Method for Measurement of Metal and Oxide Coating Thickness by Microscopical Examination of a Cross Section

**These Standards are used in Combination with Metallurgy Testing:**

<p>ASTM E3-01(07) 2007-07</p>	<p><i>Standard Guide for Preparation of Metallographic Specimens</i></p>
<p>ASTM A53-06 2006-06</p>	<p><i>Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless Section 7: Tensile Requirements</i></p>



## Annex to the Accreditation Certificate DAP-PL-4299.00

ASTM E407-07 2007-05	Standard Practice for Microetching Metals and Alloys
ASTM E883-02 2007-05	Standard Guide for Reflected Light Photomicrography
ASTM B557-06 2006-05	Standard Test Methods for Tension Testing Wrought and Cast Aluminium- and Magnesium-Alloy Products
ASTM E8/E8M-08 2008-02	Test Methods for Tension Testing of Metallic Materials
ASTM E10-07a 2008-12	Standard Test Method for Brinell Hardness of Metallic Materials
ASTM E18-08a 2008-05	Standard Test Methods for Rockwell Hardness of Metallic Materials (A, B & C Scales)
ASTM E92-82(2003)e2 2003-01	Standard Test Method for Vickers Hardness of Metallic Materials
ASTM E112-96(2004)e2 2004-01	Standard Test Methods for Determining Average Grain Size
ASTM E290-97a(2004) 2004-10	Standard Test Methods for Bend Testing of Material for Ductility (Guided-Bend Test)
ASTM E340-00(2006) 2006-10	Standard Test Method for Macroetching Metals and Alloys
ASTM E384-08ae1 2008-03	Standard Test Method for Microindentation Hardness of Materials (Vickers Scale)
ASTM E1077-01(2005) 2005-05	Standard Test Methods for Estimating the Depth of Decarburization of Steel Specimens (Microscopical & Microindentation Methods)

### abbreviations used:

ARL	Applied Research Laboratory / Thermo Fisher Scientific Co.
ASTM	American Society for Testing and Materials
BSI	British Standard Institution
DIN	German Institute for Standardization
EN	European Standard
ICUMSA	International Commission for Uniform Methods of Sugar Analysis
ISO	International Organization for Standardization
LW	Laboratory Work Instruction of International Goods Inspection Co.

