TURKISH ACCREDITATION AGENCY

ACCREDITATION CERTIFICATE

As a Testing Laboratory

KARABÜK ÜNİVERSİTESİ DEMİR ÇELİK ENSTİTÜSÜ MALZEME ARAŞT.VE GELİŞTİRME MERK.LABORATUVARLAR I(MARGEM)

Central Address: KILAVUZLAR MAH. 413. SK. KARABÜK ÜNIVERSITESI DEMIRÇELIK ENSTITUSU NO:10 MERKEZ Karabük / Türkiye

is accredited in accordance with TS EN ISO/IEC 17025:2017 standard within the scope given in Annex following the assessment conducted by TURKAK.

Accreditation Number : AB-0905-T

Accreditation Date : 23.02.2016

Revision Date / Number : 19.02.2024 / 06

This certificate shall remain in force until **21.02.2028**, subject to continuing compliance with the standard **TS EN ISO/IEC 17025:2017**, related regulations and requirements.

Gülden Banu Müderrisoğlu
Secretary General

Turkish Accreditation Agency (TURKAK) is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreement (MLA) and International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Agreement (MRA) in the scope of ISO/IEC 17025.

This document has been signed by Gülden Banu Müderrisoğlu with a secure electronic signature in accordance with the electronic signature law numbered 5070. Use the QR code to verify the e-signed document.

Test
TS EN ISO/IEC 17025
AB-0905-T

KARABÜK ÜNİVERSİTESİ DEMİR ÇELİK ENSTİTÜSÜ MALZEME ARAŞT.VE GELİŞTİRME MERK.LABORATUVARLAR I(MARGEM)

Accreditation Nr: AB-0905-T
Revision Nr: 06 Date: 19.02.2024

Testing Laboratory

Address :
KILAVUZLAR MAH. 413. SK. KARABÜK ÜNİVERSİTESİ DEMİRÇELİK ENSTİTÜSÜ NO:10 MERKEZ Karabük / Türkiye

Phone : +90 370 418 6001
Fax : +90 370 418 9320
Email : dce@karabuk.edu.tr
Website : dce.karabuk.edu.tr

Products and Materials of Metals and Alloys

Tested Materials / Products	Name of Test	Testing Method (National, International Standards, In-house Methods)
Metallic Materials Welds in Metallic Materials	Tensile Strength Determination (Test at room temperature 5 kN - 500 kN)	TS EN ISO 6892-1 ISO 4136 ASTM E8/E8M EN ISO 6892-1
Metallic Materials	Tensile Strength Determination (up to 1000°C) at high temperature (5 kN - 500 kN)	TS EN ISO 6892-2 ASTM E21
Metallic Materials Welds in Metallic Materials	Bend Test max 250 kN	TS EN ISO 7438 EN ISO 7438 ISO 7438 ASTM E190 ASTM E290 EN ISO 5173 ISO 5173
Metallic Materials Welds in Metallic Materials	Charpy Pendulum Impact Test max 450J	TS EN ISO 148-1 EN ISO 148-1 TS EN ISO 9016 EN ISO 9016 ASTM E23
Metallic materials	Hardness Test Brinell HBW 2,5/187,5	TS EN ISO 6506-1 ISO 6506-1
Metallic materials	Hardness Test Rockwell-C (HRC)	TS EN ISO 6508-1 ISO 6508-1
Metallic materials	Hardness Test Vickers HV10	TS EN ISO 6507-1 ISO 6507-1
Rails	Residual Stress Measurement on Rails	TS EN 13674 -1+A1 Article 8.5 EN 13674 -1 Article 8.5 DIN EN 13674 -1 Article 8.5

Accreditation Scope

Test
TS EN ISO/IEC 17025
AB-0905-T

KARABÜK ÜNİVERSİTESİ DEMİR ÇELİK ENSTİTÜSÜ MALZEME ARAŞT.VE GELİŞTİRME MERK.LABORATUVARLAR I(MARGEM)

Accreditation Nr: AB-0905-T
Revision Nr: 06 Date: 19.02.2024

Testing Laboratory

Address :
KILAVUZLAR MAH. 413. SK. KARABÜK ÜNİVERSİTESİ DEMİRÇELİK ENSTİTÜSÜ NO:10 MERKEZ Karabük / Türkiye

Phone : +90 370 418 6001
Fax : +90 370 418 9320
Email : dce@karabuk.edu.tr
Website : dce.karabuk.edu.tr

Metallic Materials	Fatigue Testing	ISO 1099 TS EN ISO 15630 -1 TS 708 TS EN 13674 -1+A1 Article 8.4 ASTM E466 ASTM E606 ISO 12106 BS 4449 EN 13674 -1 Article 8.4 DIN EN 13674 -1 Article 8.4
Metallic Materials Non-Alloyed and Low-Alloy Steels	Optical Emission-Spectral Analysis of Carbon (C), Silicium (Si), Manganase (Mn), Phosphorus (P), Sulfur (S), Chromium (Cr), Molybdenum (Mo), Nickel (Ni), Aluminium (Al), Vanadium (V),Copper (Cu)	ASTM E 415
Metallic Materials	Microstructure Analysis	TS EN 13674 -1+A1 Article 9.1.4 EN 13674 -1 Article 9.1.4 ASTM E3 DIN EN 13674 -1 Article 9.1.4
Metallic Materials	Estimating the Depth of Decarburization	TS EN 13674 -1+A1 Article 9.1.5 EN 13674 -1 Article 9.1.5 DIN EN 13674 -1 Article 9.1.5 ASTM E1077 ISO 3887
Metallic Materials	Fracture Toughness Test CTOD 1 kN-90 kN	TS EN 13674 -1+A1 Article 8.2 EN 13674 -1 Article 8.2 DIN EN 13674 -1 Article 8.2 ISO 15653 ISO 12135 ASTM E1820 ASTM E1290 ASTM E399
Metallic materials	Fatigue Crack Growth	TS EN 13674 -1+A1 Article 8.3 EN 13674 -1 Article 8.3 DIN EN 13674 -1 Article 8.3 ASTM E647 BS ISO 12108