

CP-M12

Rev 6 19.11.2019

EN 14399-1 CERTIFICATION PROGRAM

305/2011/AB Construction Product Regulation 98/214/EC Commission Decision Conformity Assessment Program System (TAT CP)

Certification Program for Produce Preloaded High Strength Constructural Bolting Sets





THIS PUBLICATION IS COPYRIGHTED Copyrights © 2019 İstanbul, Turkey

All rights reserved. Unless otherwise stated, no part of this publication can be copied or used by no means, electronically or mechanically, including photocopy or microfilm, without the written consent of TÜV AUSTRIA TURK.

TÜV AUSTRIA TURK Barbaros Mah. Susuz Sok. No :13/1 PK :34746 Ataşehir, İstanbul Turkey

Tel.: +90 216 537 0811 Fax: +90 216 537 0813 infoturkey@tuv.at www.tuvaustriaturk.com

About TÜV AUSTRIA TURK

TÜV AUSTRIA TURK is a leading global organization which develops and publishes Certification Programs for the approval of technical materials such as construction products, machinery, pressure equipment etc.

About the Publications of TÜV AUSTRIA TURK

Technical content of the publications of TÜV AUSTRIA TURK is regularly revised and updated by TÜV AUSTRIA TURK. Please make sure that it is the latest version.

Useful Links:

About TÜV AUSTRIA - www.tuv.at/tr

You can have an access to further information about TÜV AUSTRIA and our services in our broad industrial service through this link.

It also provides information about the projects, changed or withdrawn publications.

TÜV TIMES - <u>https://www.tuv.at/tr/tuev-austria-</u> group/tuev-austria-times/

Stay up to date in all new TÜV Times publications. All newly-published contents are here online and quarterly in mobile applications.



Customer Services Center - ifturkey@tuv.at

If you would like to provide feedback or need for further assistance in this publication, please contact with our Customer Services Center: <u>ifturkey@tuv.at</u>



CONTENTS

С	ONTEN	TS	.2
1.	Intro	duction	.4
	1.1	Introduction to Certification Program	.4
	1.2	Certification Program Committee	.4
	1.3	Documentation	
2.	Conf	ormity Assessment	.5
	2.1 De	termining Execution Classes	.5
3.	Dutie	s and Responsibilities	.5
	3.1	Qualifications of Personnel to be Assigned in Audits	.5
	3.2	Duties of Producer and Authorized Organization (NoBo)	.5
	3.3	Duties of Decision Makers	.6
4.	Certi	fication Processes	.6
	4.1	Conformity Assessment Process	6
	4.1	Comonity Assessment Process	. 0
	4.1 <mark>4.2</mark>	Audit Period	.6
		•	.6
	<mark>4.2</mark>	Audit Period Surveillance Audits Follow-up Audits	.6 .7 .7
	<mark>4.2</mark> 4.3	Audit Period Surveillance Audits	.6 .7 .7
	<mark>4.2</mark> 4.3 4.4	Audit Period Surveillance Audits Follow-up Audits Transfer Inspection Changes (changes in scope, address, resource coordination staff)	.6 .7 .7 .7 .8
	4.2 4.3 4.4 4.5	Audit Period Surveillance Audits Follow-up Audits Transfer Inspection Changes (changes in scope, address, resource coordination staff) Suspension	.6 .7 .7 .7 .8 .9
	4.2 4.3 4.4 4.5 4.6	Audit Period Surveillance Audits Follow-up Audits Transfer Inspection Changes (changes in scope, address, resource coordination staff)	.6 .7 .7 .7 .8 .9
	4.2 4.3 4.4 4.5 4.6 4.7	Audit Period Surveillance Audits Follow-up Audits Transfer Inspection Changes (changes in scope, address, resource coordination staff) Suspension	.6 .7 .7 .8 .9
	4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 4.10	Audit Period Surveillance Audits Follow-up Audits Transfer Inspection Changes (changes in scope, address, resource coordination staff) Suspension Cancellation or Withdrawal Validity Period of Conformity Certificate 1 Validity Period of Conformity Certificate	.6 .7 .7 .8 .9 .9
5.	4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 4.10	Audit Period Surveillance Audits Follow-up Audits Transfer Inspection Changes (changes in scope, address, resource coordination staff) Suspension Cancellation or Withdrawal Validity Period of Conformity Certificate	.6 .7 .7 .8 .9 .9
5. 6.	4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 4.10 Logo	Audit Period Surveillance Audits Follow-up Audits Transfer Inspection Changes (changes in scope, address, resource coordination staff) Suspension Cancellation or Withdrawal Validity Period of Conformity Certificate 1 Validity Period of Conformity Certificate	.6 .7 .7 .7 .8 .9 .9 .1 .1
	4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 4.10 Logo Obje	Audit Period Surveillance Audits Follow-up Audits Transfer Inspection Changes (changes in scope, address, resource coordination staff) Suspension Cancellation or Withdrawal Validity Period of Conformity Certificate 1 Validity Period of Conformity Certificate 1 and Brand Usage	.6 .7 .7 .8 .9 .9 .1 .1 .1



THE PREFACE

Scope

This document explains the implementation requirements of TÜV AUSTRIA TURK as part of conformity assessment and provides support for applications for valuable clients.

Document Holder

TÜV AUSTRIA TURK Belgelendirme Eğitim ve Gözetim Hizmetleri Ltd. Şti.

Revision History

No	Date	Information About Changes
0	14.08.2015	TS EN 14399-1 Certification Program First Publication
1	10.06.2016	Implementation is changed through Program Committee's decision in case of any changes in conditions.
2	29.06.2016	References were added.
3	27.10.2016	The application assesment process was revised. The article of reducing scope was added.
4	25.05.2018	Changes in coding and implementation processes were added.
5	14.10.2019	Transfer audits and changes clause has been added.
<mark>6</mark>	<mark>19.11.2019</mark>	Audit Period has been redefined



1. Introduction

1.1 Introduction to Certification Program

This certification program has been prepared in accordance with the requirements of EN ISO/IEC 17067 Article 6.5 Program Content in order to describe how the certification activities would be carried out for the production of component of bolt / nut / string tools for High Strength Constructural Bolting in accordance with TÜV Austria Turk, TS EN 14399-1 standard.

For CE marking of produced steel works, the relevant harmonized European Standard is "14399-1: Preloaded High Strength Constructural Bolting Sets – Part 1: General Specifications" olup, examples of components providing the rules of this standard are given in EN 14399-3, EN 14399-4, EN 14399-5 and EN 14399-6.

Duties which will be executed by a Notified Body (TÜV Austria Turk) under 2+ Conformity Approval system are Factory Production Control (FPC) audit as well as FPC's constant surveillance, assessment and approval. An EC Certificate is issued for Factory Production Control at the end of the assessments which are regarded as successful.

Certification Program Content fulfills I,II,III,IV and V conditions among the functions that are specified in EN ISO/IEC 17067 Article 5.

1.2 Certification Program Committee

TÜV AUSTRIA TURK performs conformity assessment activities through harmonized standards. The Program Committee consists of persons who are knowledgeable about the 305/2011 Construction Product Regulation (CPR), which is capable of representing the following parties.

- Representing non-governmental organizations
- Representing industrialists
- Representing the public
- University / Academician representative
- Conformity Assessment Agency representative

Program Committee members are indicated on the TÜV AUSTRIA TURK Organization Chart and on the personnel list.

1.3 Documentation

TÜV AUSTRIA TURK conformity assessment system documentation and annexes, which have been prepared by considering 305/2011 Construction Material Regulations and the relevant legal legislation, shall be used.



2. Conformity Assessment

2.1 Determining Execution Classes

Classification and application standard are determined in accordance with Table in TS EN 14399-1

Table 1 - Systems of Bolt / Nut / String Tools

	HR System		HV System
	Bolt / Nut / String Tools		Bolt / Nut / String Tools
General Specifications	EN-14399-1		
Bolt / Nut Tools	EN-14399-3		EN-14399-4
Marking	HR		HV
Strength Classes	8.8/8	10.9/10	10.9/10
Strings	EN-14399-5 or EN-14399-6		EN-14399-5 or EN-14399-6
Marking	н		Н
Conformity testing for preloading	EN-14399-2		EN-14399-2

3. Duties and Responsibilities

3.1 Qualifications of Personnel to be Assigned in Audits

Chief auditors to be assigned in Factory Production Control assessment must have five years of work experience in their product group, at least two years of which is on site.

If chief auditor does not have adequate experience for the product group to be examined, it is required to support him with a technical expert having the same experience.

3.2 Duties of Producer and Authorized Organization (NoBo)

System 2+ : Declaration of the performance of basic characteristics of construction products is based on the following issues by the producer:

(a) Producer executes the following:

(b) Authorized organization certifying Factory Production Control issues the conformity certificate of Factory Production Control based on the following:

Table 1 Sy	vstem 2+ ¹	
System	Producer	TÜV AUSTRIA TURK

¹ Bu tablo 305/2011/AB Yapı Malzemeleri Regülasyonu Ek-5'te bulunan listenin ilk maddesinden uyarlanmıştır.

	Determination of material type based on type test (including sampling) of the material, type calculations, values which are specified in tables or explanatory documents.	Initial audit of Factory Production Control and production facility
2 +	Factory Production Control-	Constant surveillance, measurement and assessment of Factory Production Control
	Additional tests of the samples obtained from the factory in accordance with the test plan prepared previously.	Conformity Certificate
	Preparing Performance Declaration	

3.3 Duties of Decision Makers

For the certification of the products specified in 305/2011/EU(AB) Construction Product Regulation 98/214/EC Commission Decision,

- Guidance for the Accreditation of Authorized Organization Candidates under TÜRKAK R50.08 305/2011/EU(AB) Construction Product Regulation
- Communique on Assignment and Audit of Authorized Organizations under Construction Product Regulation (305/2011/AB) carried out by the Ministry of Environment and Urbanization (Communique No: MHG/2013-09)

are applied within the scope of conformity assessment activities conducted in TÜV AUSTRIA TURK.

Directive Manager/Technical Regulation Officer who manages the activities of TÜV AUSTRIA TURK which are carried under Construction Product Regulation (305/2011/AB) 98/214/EC Commission Decision must

- be graduated from technical departments of 4-year universities and

- have at least 4 years of experience, at least 2 years of which must be in the field of construction products conformity assessment, and have at least 5 years of work experience.

Directive Manager/Technical Regulation Office examines conformity assessment documentation conducted at the end of Factory Production Controls and approves the approval or rejection of document and extension or reduction of scope.

4. Certification Processes

4.1 Conformity Assessment Process

Conformity assessment activities which will be conducted by TÜV AUSTRIA TURK are carried out in accordance with PRO-CAS-001 Conformity Assessment Procedure.

4.2 Audit Period

The audits are repeated regularly every year after the initial evaluation. This period may vary up to ± 2 months in accordance with customer requirements.

Implementation Standards	FPC's inspection intervals of the producer after ITT	
	<mark>(year)</mark>	
EN 14399-1	<mark>1-1</mark>	





4.3 Surveillance Audits

Audit of corrective actions, revision of revised or added product documents, analysis of conformity and efficiency in the application and critical items are controlled within the scope of surveillance audit with regard to the nonconformities which are determined in the previous audit. An audit report is prepared for the surveillances and nonconformities which are determined at the end of audit. Corrective actions for the removal of nonconformities are monitored as follows:

- If the advisory nonconformities, which are identified in the previous audit and which can be removed in document basis, have not been removed, they are turned into major nonconformities depending on the effect of nonconformity. A follow-up audit is conducted one month later. If the nonconformity has been removed, it is decided that product certificate will maintain its validity; but if it has not been removed, it is decided that the document will be suspended and reported to the organization.
- If a nonconformity which is an obstacle for the certification is identified in surveillance audit for the first time, a period of one month is provided for the execution of corrective actions. If it has been realized in the follow-up audit at the end of one month that the nonconformity has been removed, it is decided that product certificate will maintain its validity; but if it has not been removed it is decided that the document will be suspended and reported to the applicant in written.

4.4 Follow-up Audits

Follow-up audits are required for major nonconformities; however no follow-up audit is conducted for major nonconformities which can be validated through documents of records in some cases. This decision is made by the chief auditor. Proofs of corrective actions conducted for minor nonconformities are sent by the company to the chief auditor within the prescribed time.

Company is provided with a period of 3 months following certification audit which requires follow-up audit. If the company requests time extension (orally or in written) at the end of this 3-month period, this request is examined by certification manager-body and it is provided with an additional 3-month period if it is deemed as appropriate. Execution period of follow-up audit cannot exceed 6 months. If it is observed in follow-up audits that major nonconformities have not been removed or the company does not confirm the follow-up audit date specified in follow-up audit notification letter sent by Product Certification / Directive Manager, the application of the organization is cancelled.

If a major nonconformity has been turned into minor nonconformity, the company is requested to remove the nonconformity within 1 month. If there is any nonconformity which could not be removed within that period, the company's application is cancelled. After the verification of nonconformities by the chief auditor, audit file is sent to certification body. If the company does not apply for follow-up audit within 3 months following the date of decision made by Certification Manager-Body that the document will be suspended, Certification Agreement is terminated and the document is withdrawn

4.5 Transfer Inspection

Transfer Inspection is an inspection carried out with the purpose and request of issuing a certificate which is valid from a different accredited institution from TÜV AUSTRIA TURK.

If an organization that has obtained a certificate from an authorized institution other than TÜV AUSTRIA TURK applies for certification, TÜV AUSTRIA TURK performs an inspection covering the following:

1. Review of document and review of inspection reports prepared by the previous certification authority,



2. Transfer inspection at the premises of the organization, the scope of which depends on the suitability and validity of the previously issued certification.

Transfer inspections are valid for documents submitted by Accredited Institutions. However, in the event that the issuing organization has stopped its commercial activities or its accreditation has been cancelled, the Technical Regulatory Officer decides on the transfer inspection of the applicant organization.

The certificate must still be active and valid for transfer inspection. The last inspection date of the organization applying for transfer must be realized no more than 12 months before the transfer inspection date.

Transfer inspections cannot be performed for suspended or cancelled certificates, and are treated as initial certification.

Before the transfer inspections are carried out, the nonconformities notified to the company whose certificate is valid by the previous certification body should be removed or the issues included in the certification programs of the relevant organizations must be fulfilled.

If there are doubts about the adequacy of the company's certificate and it continues, depending on the content of the doubt;

- 1. Is considered a new application or
- 2. Inspection time is increased in problematic areas detected.

If the company is entitled to receive the certificate, the validity period of the certificate to be issued is limited to the valid certificate period. The first certification date, the certification date and the validity period of the current certificate shall be indicated by the other Accredited Institution.

The duration of the monitoring inspections is determined by taking into account the time taken for the customer's certification.

4.6 Changes (changes in scope, address, resource coordination staff)

TÜV AUSTRIA TURK should be informed that the organization has made fundamental changes regarding the content of the document (expansion, contraction, change of title, change in product and production method, address, resource coordination personnel, deputy with equivalent rights, deputy substitute). In case no information is given about the changes, nonconformity is opened and followed up. In case of adding new activities to the scope, product and production method, address, change of source coordinator(s), change inspections must be made. In such cases, changes may be required on the periodic inspection date. If changes are required, both periodic and change inspections are carried out together.

- Expansion/contraction of scope

The organization shall notify TÜV AUSTRIA TURK when it is desired to make any changes to the product, the manufacturing process or, if appropriate, the quality system specified in the TS EN ISO/IEC 17065 standard that affects the conformity of the product.

TÜV AUSTRIA TURK determines whether these reported changes require further investigations and, where such investigation is necessary, the release of products resulting from such changes is not permitted until TÜV AUSTRIA TURK provides the customer with appropriate information. If the organization does not inform TÜV AUSTRIA TURK about the changes and it is detected during the inspection, nonconformity is opened and followed up. TÜV AUSTRIA TURK shall not allow the products to be released to the market if any nonconforming products are detected during the controls. If the control or test results show that the product does not meet the requirements, the corrective measures required by the organization must be taken and the products must be separated and marked accordingly. After the nonconformity has been



removed, the control or tests must be repeated. If products have been delivered before the inspection or test has been completed, the organization's procedure must be available and records kept in order to notify customers.

If non-conforming products are detected during the inspections, it is necessary to separate the products by the organization, eliminate the nonconformities and repeat the controls after the nonconformities are removed. In this process, the customer should be informed and records should be kept in accordance with the procedure regarding the products on the market that may affect the nonconformity.

In case of adding new activities to the scope, change of product and production method, etc., change control must be performed. In such cases, changes may be required on the periodic inspection date. In case that changes are required, both periodic and scope change inspections are carried out together.

In case the scope is expanded, the auditor in charge shall be renewed with the new certificate number and the old certificate shall be cancelled if the decision made by the Product Certification Committee is positive.

If the organization shows continuous or serious failures in meeting the certification requirements for part of the scope of the certificate, the part of the scope of certification is narrowed to exclude the unmet portion of the certification scope. This type of reduction is carried out in accordance with the requirements of the standard used for certification.

In case the applicant requests to narrow the scope of the certificate or depending on the result of the intermediate control of the auditor and expert involved in the certification process, the certificate shall be inspected and processed according to the decision of the Product Certification Committee provided that the scope reduction proposals shall be examined during the next planned inspection.

If the decision of the Product Certification Committee is positive, the certificate is renewed with the new certificate number and the former certificate is cancelled. In this case, the certificate fee stated in the service offer is requested.

- Certificate Holder Title Change

According to the new title, the certificate holder transmits the trade registry newspaper and signature circular to TÜV AUSTRIA TURK. In case of a change in the title of the certificate holder, if there is no change affecting the product, production, and factory production control system, the certificate shall be renewed with the new certificate number and cancellation of the former certificate shall be performed with the decision of TÜV AUSTRIA TURK. In this case, the certificate fee stated in the service offer is requested.

- Address Change

In case of change of production plant, change inspection is carried out to examine the new place of production of the certificate holder. In case of the determination of the adequacy of the Factory Production Control system in the examination, the new certification number and the certificate of the organization and other documents shall be arranged according to the address of the new production plant upon the decision of the Product Certification Committee and the former certificate shall be cancelled. In such cases, changes may be required on the periodic inspection date. If changes are required, both periodic and address change inspections are carried out together.

4.7 Suspension

Certificates may be suspended by Certification Committee Manager for a specific period in some cases.



Decision of suspension is notified to Product Certification Manager / Directive Manager in written. Suspended certificates are also explicitly announced on the list of certified companies on TÜV Austria Turk's web site. For example;

- In cases which are not in conformity with the requirements specified in the relevant certification program but where it is not required to withdraw the certificate immediately during surveillance audit,
- If the certificate holder does not conduct any withdrawal or corrective actions in case of improper use of certificate or logo (for example, misleading publications or advertisement) (Logo Usage Procedure)
- If Certification Body's process certification program or procedures are violated,
- If the company does not fulfill the contractual liabilities,
- If major nonconformities could not be removed in follow-up audits,
- If major nonconformities are identified at the end of audits.

Certificate holder is prohibited from describing any process-product as certified in which the certificate is suspended.

Certificate may be suspended for a limited period of time (maximum 3 months) because of such reasons other than production or any other reasons at the end of the mutual agreement between TÜV Austria Turk and certificate holder.

Reason for suspension of certificate by TÜV Austria Turk is notified to the certificate holder by Product Certification Manager / Directive Manager in written as well as explaining the conditions of removal of suspension.

Decision of suspension is abolished by Certification Body when appropriate circumstances are achieved; and this decision is notified to Product Certification Manager / Directive Manager in written. Product Certification Manager / Directive Manager makes or gets somebody make the necessary corrections in the list of certified companies on TÜV Austria Turk's web site and notifies the certificate holder in written.

4.8 Cancellation or Withdrawal

Certificate may be withdrawn by Certification Manager / Body in some cases. Decision of withdrawal is notified to Product Certification Manager / Directive Manager in written. Withdrawn documents are removed from the list of certified companies on TÜV Austria Turk's web site. In the following cases, TÜV Austria Turk is entitled to withdraw the certificate by notifying the certificate holder in written:

- If surveillance audit results indicate that there is a serious nonconformity,
- If certificate holder does not comply with the financial agreement,
- If there are any issues contradicting to the certificate agreement,
- If the authorized personnel whose name is written in the document has changed,
- If the certificate holder takes inadequate precautions in case of suspension,
- If the certificate holder does not want to extend the certificate,
- If the standards or rules change and the certificate holder cannot or does not guarantee that he will obey to new requirements,
- If the process is stopped or the certificate holder goes bankruptcy,
- On the grounds of the other provisions in certificate agreement. Legal Warning: This document is controlled and electronically published. Current document version is only the version on TÜV AUSTRIA TURK Web Site.





4.9 Validity Period of Conformity Certificate

Validity period of the certificates or remarks on the validity period of the certificates are written on the document. TS EN 14399-1 document is valid for 3 years at the latest provided that annual surveillances are conducted. This validity period is valid if surveillance audits are successfully executed. Process is launched again through an Assessment Application Form for the expired documents.

4.10 Validity Period of Conformity Certificate

TÜV AUSTRIA TURK notifies any changes in certification standards and/or Certification programs to Program Committee organized by itself.

Program Committee can decide how the system will be operated regarding the changes; and all the guidance documents published as NB-CPD over CIRCABC are exactly implemented in accordance with the decisions taken. These changes are notified to the clients within 15 (fifteen) business days from date of decision at the latest. If these changes require surveillance action, the client is notified by Product Certification Manager / Directive Manager/Technical Regulation Officer and the action is conducted on the date which is mutually agreed with the client by considering the dates of implementation decision by Program Committee.

TÜV AUSTRIA TURK is entitled to make all decisions regarding certificate renewal.

5. Logo and Brand Usage

PRO-001 Logo and Brand Usage Procedure is shared after signing the agreement with the clients and/or provided for access to all the relevant parties through internet address.

Logos which are regularly used by the clients in the relevant products are followed by TÜV AUSTRIA TURK's internal auditors. Follow-up controls which are deemed as required can also be conducted from all external advertisements, including the images shared by the client on web site, or by the auditors during regular surveillances.

6. Objection to Results & Complaints

Our clients are entitled to submit their objections to all the decisions taken by TÜV AUSTRIA TURK or their complaints about the implementation. Objections and complaints which may be submitted during conformity assessment activities or conclusions are assessed and concluded in accordance with PRO-010 Objection, Complaint and Disputes Procedure.

All the complaints about chief auditor/auditor or TÜV AUSTRIA TURK personnel or services as well as all the objections against certification decisions are submitted by TÜV AUSTRIA TURK to the assessment of Objection & Complaint Committee. If the objections and complaints are technical, it is required take the view of a competent personnel having technical capabilities who has not participated in audit.

7. Confidentiality, Impartiality and Independency

TÜV AUSTRIA TURK guarantees that it maintains Impartiality, independency and confidentiality policy in all of its conformity assessment activities. It takes precautions for all the risks which will harm its Impartiality in risk analyses conducted through annual assessment meetings held with Impartiality Protection Committee. Information of all the parties obtained through conformity assessment activities are kept as confidential.



8. Normative References

- "Code on Preparation and Implementation of Technical Legislation for the Products" No. 4703 dated 29th June 2001.
- "Regulation on Conformity Assessment Bodies and Authorized Organizations" promulgated in Official Gazette No. 28213 dated 23rd February 2012.
- "Regulation on Market Surveillance and Audit of Products" promulgated in Official Gazette No. 24643 dated 17th January 2002."
- "CE Marking Regulation" promulgated in Official Gazette No. 28213 dated 23rd February 2012.
- "Construction Product Regulation (305/2011/AB)" promulgated in Official Gazette No. 28703 dated July 2013.
- Communique on Assignment and Audit of Authorized Organizations under Construction Product Regulation (305/2011/AB) (Communique No: MHG/2013-09)
- European Commission Resolutions, Explanatory Documents, Authorized Organization Groups documents,
- Provisions of codes, regulations, communiques, private and administrative technical specifications etc. which are or will be put into force,
- EN 1090-1:1996, Execution of steel structures Part 1: General rules and rules for buildings.
- EN 10045-1, Metallic materials Charpy impact test Part 1: Test method.
- EN 10204, Metallic products Types of inspection documents.
- EN 14399-2, High-strength structural bolting for preloading Part 2: Suitability test for preloading.
- EN 14399-3, High-strength structural bolting for preloading Part 3: System HR Hexagon bolt and nut assemblies.
- EN 14399-4, High-strength structural bolting for preloading Part 4: System HV Hexagon bolt and nut assemblies.
- EN 14399-5, High-strength structural bolting for preloading Part 5: Plain washers.
- EN 14399-6, High-strength structural bolting for preloading Part 6: Plain chamfered washers.
- EN 20225, Fasteners Bolts, screws, studs and nuts Symbols and designation of dimensions (ISO 225:1983).
- EN 20898-2, Mechanical properties of fasteners Part 2: Nuts with specified proof load values Coarse thread (ISO 898-2:1992).
- EN ISO 898-1, Mechanical properties of fasteners made of carbon steel and alloy steel — Part 1: Bolts, screws and studs (ISO 898-1:1999).
- EN ISO 6507-1, Metallic materials Vickers hardness test Part 1: Test method (ISO 6507-1:1997).
- EN ISO 9001, Quality management systems Requirements (ISO 9001:2000).





TÜV AUSTRIA TURK Belgelendirme Eğitim ve Gözetim Hizmetleri Ltd. Şti.

Head Office: Barbaros Mah. Susuz Sok. No:13/1 Ataşehir / İstanbul / TURKEY

Tel: + 90 216 537 08 11 infoturkey@tuv.at www.tuvaustriaturk.com

> Legal Warning: This document is controlled and electronically published. Current document version is only the version on TÜV AUSTRIA TURK Web Site.