

**GTSPA002**

**GTS**  
**Certificate Guideline**

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Gemeinschaft Thermisches Spritzen e.V.  
Association of Thermal Sprayers

**GTS Certificate Guidelines**  
**GTSPA002**

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## **1 Name and headquarters**

The association is a group formed from the industrial, trade and research sector specialising in the field thermal spraying and bears the name “Association of Thermal Sprayers“ (in short “GTS“). The association is registered with the official register of societies and associations at the Munich county court.

Headquarters are in Munich.

## **2 Purpose**

The association has the purpose:

1. to assure thermal spray quality,
2. to mark products whose quality is assured with the GTS certificate and
3. to promote thermal spray technology,

in particular by way of

- joint advertising activities
- joint public relations activities to facilitate a more widespread application of thermal spraying
- specialist events such as colloquia, exhibitions, seminars, training programmes, etc.

## **3 Representation**

The Executive Board in accordance with §26 BGB (German civil code) constitutes the president and the deputy president. Each has the sole power of representation.

## **4 Definition of GTS certificate**

The GTS certificate shows that the GTS member has successfully undergone an inspection according to the GTS quality guidelines and thus can supply reproducible quality for the areas identified in the GTS certificate.

The GTS certificate is awarded by the GTS Executive Board after passing an inspection carried out by an accredited inspection authority (see GTSPA007 clause 8). The GTS certificate is valid for 3 years.

### **4.1 Inspection of the company**

The inspection of the company always includes an inspection of persons, of processes and, if requested, of products and/or coatings.

The extent of the person and process inspection is stipulated by the GTS guidelines. The extent of the product or coating inspection is stipulated solely by the GTS member-company to be inspected

The GTS Executive Board must be notified of any changes to fundamental conditions in the process or personnel area (e.g. the resignation of the “GTS thermal spray specialist”) The latter decides in each individual case on the re-issue of the GTS certificate.

## 5 Drawing up and design of the certificate

GTS is the bearer of the certificate with the logo:



The GTS certificate must be defined more closely by specifying the following details in the GTS certificate:

For the certified thermal spray process:

- flame spraying
  - powder flame spraying
  - wire flame spraying
- high velocity oxy-fuel flame spraying
- detonation spraying
- arc spraying
- plasma spraying
  - plasma spraying in air
  - plasma spraying in chambers
- laser spraying
- plasma transferred arc surfacing (PTA)
- cold spraying

and

for the certified personnel (the respective certificate is issued by the certification authority on behalf of GTS):

- GTS thermal spray specialist (with ETSS qualification) <sup>1</sup>
- GTS qualified sprayer (with ETS qualification) <sup>2</sup>

and if necessary

the certified product and/or coating, whereby the GTS member-company to be inspected determines the nature and extent of the inspection itself.

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<sup>1</sup> According to the decision taken at the 19<sup>th</sup> GTS AGM 2011 and the supplementary decision taken at the 24<sup>th</sup> GTS AGM 2016, new members as of 01/01/2012 must employ at least one **GTS Thermal Spray Specialist with an ETSS qualification** to obtain the GTS Certificate **or successfully pass examination in accordance with ISO 12690**. For existing members who employ spray staff with more than 5 years' work experience, an interim period until 01/01/2019 applies. Examination in accordance with ISO 12690 can above all be applied in countries in which no ETSS courses are available.

<sup>2</sup> According to the decision taken at the 19<sup>th</sup> GTS AGM 2011 and the supplementary decision taken at the 24<sup>th</sup> GTS AGM 2016, new members as of 01/01/2012 must employ at least one **GTS Qualified Sprayer with an ETS qualification** to obtain the GTS Certificate **or successfully pass examination in accordance with ISO 14918**. For existing members who employ spray staff with more than 5 years' work experience, an interim period until 01/01/2019 applies. Examination in accordance with ISO 14918 can above all be applied in countries in which no ETS courses are available.

The GTS logo is registered with the German Patent Office under the No. 2062298.

The GTS certificate is awarded in the form of a GTS document bearing the respective certificate seal along with the certificate plaque.

## **6 Sphere of entitled parties and terms and conditions of use**

Any GTS member-company which thermally sprays finished or semi-finished parts and which has been awarded the GTS certificate may bear and use the GTS certificate.

GTS member-companies may only use the GTS certificate for certified thermal spray processes or for certified products.

## **7 Rights and obligations of the parties**

### **7.1 GTS shall**

- ensure that the GTS certificate-holders comply with the GTS quality guideline,
- take appropriate action if the use of the GTS certificate is violated or impaired,
- intervene if the GTS certificate is misused.

### **7.2 GTS certificate-holders shall**

- comply with the GTS statutes and the GTS quality guideline,
- inform GTS if GTS certificates are misused,
- help to promote the purpose of GTS,
- pay the fee stipulated by GTS or their contribution punctually.

GTS certificate-holders are personally responsible for the quality of their products.

GTS, its decision-making bodies and its representatives bear no liability.

On request, GTS shall assist GTS certificate-holders to clarify claims in relation to quality-assured products. Any costs incurred by GTS shall be reimbursed. The drawing out of legal claims in connection with this assistance is not possible.

## **8 Extent and implementation of inspection**

During the inspection, proof must be furnished by the company that it fulfils the current national and international standards in relation to spray materials, installation technology and the spray process.

### **8.1 Prerequisites**

A basic prerequisite for the admittance of a GTS member-company to a company inspection is the proof of a representable GTS quality management system (GTS QM system). The proof is effected by presenting to the accredited inspection authority a GTS quality management manual (GTS QM manual) in which the company's QM system is correctly described. In contrast to certification inspection in accordance with DIN

EN ISO 9001:2000, a detailed inspection in limited form is conducted by the accredited inspection authority to verify the compliance of the contents of the GTS QM manual with the procedures in the company. Proof of further general quality management is carried out in accordance with the attached GTS QM Evaluation Form without a detailed inspection of the compliance of the contents of the GTS QM manual.

## 8.2 Extent of company inspection

The company inspection always includes an inspection of persons, processes and, if necessary, products and/or coatings.

### 8.2.1 Process inspection

for the thermal spray process to be inspected:

- flame spraying
  - flame spraying with powder
  - flame spraying with wire
- high velocity oxy-fuel flame spraying
- detonation spraying
- arc spraying
- plasma spraying
  - atmospheric plasma spraying
  - vacuum plasma spraying
- laser spraying
- plasma transferred arc (PTA)
- cold spraying

### 8.2.2 Personnel inspection

for persons to be inspected:

- GTS thermal spray specialist (with ETSS qualification) <sup>3</sup>
- GTS qualified sprayer (with ETS qualification) <sup>4</sup>

The personnel inspection is carried out by way of a multiple choice procedure whereby the questions (GTSPA014) are compiled by GTS. The total extent of the personnel and process inspection is laid down by GTS.

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<sup>3</sup> According to the decision taken at the 19<sup>th</sup> GTS AGM 2011 and the supplementary decision taken at the 24<sup>th</sup> GTS AGM 2016, new members as of 01/01/2012, must employ at least one **GTS Thermal Spray Specialist with an ETSS qualification** to obtain the GTS Certificate **or successfully pass examination in accordance with ISO 12690**. For existing members who employ spray staff with more than 5 years' work experience, an interim period until 01/01/2019 applies. Examination in accordance with ISO 12690 can above all be applied in countries in which no ETSS courses are available.

<sup>4</sup> According to the decision taken at the 19<sup>th</sup> GTS AGM 2011 and the supplementary decision taken at the 24<sup>th</sup> GTS AGM 2016, new members as of 01/01/2012 must employ at least one **GTS Qualified Sprayer with an ETS qualification** to obtain the GTS Certificate **or successfully pass examination in accordance with ISO 14918**. For existing members who employ spray staff with more than 5 years' work experience, an interim period until 01/01/2019 applies. Examination in accordance with ISO 14918 can above all be applied in countries in which no ETS courses are available.



### **8.2.3 Product/Coating inspection:**

Together with the independent inspection authority, the GTS member-company to be inspected itself determines the nature and extent of the inspection for the product or coating to be inspected.

### **8.3 Procedure of company inspection**

The GTS member-company submits to the GTS Executive Board an application for a company inspection using the prescribed GTS application papers. The Executive Board formally checks whether the company, process and personnel prerequisites have been fulfilled. If the prerequisites have been fulfilled, the GTS member-company applying will be granted the clearance for the company inspection. Having nominated an inspection authority authorised by GTS, the GTS member-company commissions the chosen inspection authority, via the GTS Executive Board, to conduct the inspection for the attainment of the GTS certificate. The cost estimate of the inspection authority is effected after consultation with the GTS Executive Board. All other inspection-related agreements thereafter are made between the inspection authority and the GTS member-company itself.

### **8.4 Award of the GTS certificate**

After the GTS member-company has successfully undergone the company inspection, the inspection authority informs the GTS Executive Board. The latter then awards the GTS certificate, the certificate stamp and the certificate plaque. The awarded stamp and plaque remain the property of GTS.

### **8.5 Loss of user rights to the GTS certificate**

The permission granted to the GTS member to use the GTS certificate is only valid for the duration of its membership in GTS. This permission expires automatically on the withdrawal or expulsion of the GTS member. On expiry, the GTS member must refrain from any further use of reproductions in its possession, without any entitlement to reimbursement.

## **9 Transferability of the GTS certificate**

The permission granted to the GTS member to use the GTS certificate may not be transferred to third persons or companies.

## **10 Amendments to the GTS certificate guidelines**

Amendments to the GTS certificate guidelines can only be carried out by the GTS Executive Board in agreement with the GTS Quality Committee.

Unterschleissheim, Germany, September 2016

*Gemeinschaft Thermisches Spritzen*  
*Quality Management for Thermal Spraying*