



Industrie Service

CERTIFICATE

The Certification Body of
TÜV SÜD Industrie Service GmbH
 Energy and Systems

certifies, that the following products:

Pipes, manufactured on basis of the following Mannesmann Line Pipe
 factory standard:
 T 11.00.001_HS_Q, REV 3 „HFI-geschweißte Rohre für den Transport von
 gasförmigem Druckwasserstoff“

| Material | Condition | Operation Temperature | Max. Operation Pressure |
|-------------|-----------|-----------------------|-------------------------|
| L290NE/X42N | Welded | -40°C – 175°C | 210 bar |
| L360NE/X52N | | -40°C – 175°C | 210 bar |
| L485ME/X70M | | -40°C – 175°C | 210 bar |

of the company

Mannesmann Line Pipe GmbH
 In der Steinwiese 31
 57074 Siegen



MANNESMANN
LINE PIPE

Ein Unternehmen der Salzgitter Gruppe

complies with the requirements defined in the TÜV SÜD Standard

P003 “Material Compatibility for Pressurized Hydrogen” REV01.

This Certificate is only valid together with the corresponding audit report
 IS-ESA21/22/71, Rev. 00, dated 10.01.2023.

This certificate is valid till 10.01.2026.

Certificate – Register-No.: KC/500603843/06/22

Munich, 10.01.2023

R. Mayer

Raphael Mayer
 Technical Certifier
 Certification Body Energy and Systems



Katrin Hausmann

Katrin Hausmann
 Certification Body
 Energy and Systems