



TEST CERTIFICATE FOR A WELDING PROCEDURE QUALIFICATION RECORD (WPQR)

Certificate no.: WPQR-TUVNORD-2022/7635

WPQR no.: WPQR-BASSAN-01

Examining body: TÜV NORD Turkey Teknik Kontrol ve Belgelendirme A.Ş.

Manufacturer: BAŞSAN MAKİNA METAL İNŞAAT TİC. LTD. ŞTİ.

Order no.: 2174032281

Address: SARAY MAH. 1076 SOK. NO:2/P KAHRAMANKAZAN

Test basis: DIN EN ISO 15614-1 (Level 2)

	Test piece	Range of qualification
Welding process(es) acc. ISO 4063:	135(MAG)(Semi automatic)	135(MAG)(Semi automatic)
Deposited thickness(es) s [mm]:	12.0 mm	Max. 24.0 mm
Product form:	Plate	Plate and Tube
Type of joint and weld:	BW (bs)	BW((ss mb), (bs)), FW
Parent material (sub)group(s):	EN 10025-2 S355J2+N EN 15608 Group 1,2	EN 10025-2 S355J2+N (ISO/TR 15608 Steels with a specified minimum yield strength ReH ≤ 360 N/mm2 for material group 1)
Parent material thickness t [mm]:	12 mm	3 mm to 24 mm
Throat thickness [mm]:	N/A	No Restriction
Single layer / multi layer:	Multi Layer	Multi Layer
Outside pipe diameter [mm]:	N/A	When D>500 mm or when D>150 mm welded in PC,PF or PA rotated position
Filler material designation:	TS EN ISO 14341-A:11 ER 70 S-6 G3Si1	Similar
Filler material maker:	LINCOLN / AS SG2	—
Filler material size [mm]:	Ø1,2	Ø1,2 / Permitted the change size of filler material when heat input requirements satisfied
Designation of shielding gas / flux:	EN 14175 M24	Similar
Designation of backing gas:	—	—
Type of welding current and polarity:	DC (+)	DC (+)
Transfer mode acc. ISO 4063:	Spray Transfer	Spray , Pulse or Globular Transfer
Heat input [kJ/mm]:	0,74-1,20	0,55-1,50
Welding position(s) acc. ISO 6947:	PA	PA , When neither impact nor hardness requirements are specified, welding of the test piece in any position (pipe or plate) qualifies for welding in all positions (pipe or plate). A decrease of more than 50 °C from the recorded preheating temperature on the WPQR requires a re-qualification
Preheat temperature [°C]:	20°	An increase of more than 50 °C in the maximum interpass temperature reached in the welding procedure test shall require re-qualification.
Interpass temperature [°C]:	Max.240°	—
Post heating for hydrogen release:	—	—
Post weld heat treatment:	—	—
Other information:	—	—

We confirm that the statements in this record are correct and that the test pieces were prepared, welded, tested and have fulfilled the requirements in accordance with the test basis.

This certificate is issued under the scope of ISO/IEC 17020 accreditation by TÜRKAK. The accreditation status would be verified via <https://secure.turkak.org.tr/kapsam/search> under accreditation number of AB-0100-M.

Remarks: An evidence of notch impact strength has been executed at 22°

Attachment:

Location: İstanbul

Date: 11.01.2023



PED-2354-

Examining body

T. AYDOĞAN
TUV NORD Turkey Tek. Kontrol ve Belg. A.Ş.

TUV NORD Turkey Teknik Kontrol ve Belgelendirme A.Ş.

Test report of a welding procedure qualification (WPQR)
Test results

Certificate no.: WPQR-TUVNORD-2022/7635

General test details	Location of test:	BAŞSAN MAKİNA WORKSHOP	Examining body:	TÜV NORD Turkey Teknik Kontrol ve Belg. A.Ş.
	pWPS no.:	Pwps-BASSAN-01	Order no.:	2174032281
	WPQR no.:	WPQR-BASSAN-01	Joining personal name:	EMRAH BAŞ
	Manufacturer:	BAŞSAN MAKİNA METAL İNŞAAT TİC. LTD. ŞTİ.	Date of welding:	04.10.2022
	Address:	SARAY MAH. 1076 SOK. NO:2/P KAHRAMANKAZAN		
Test piece	Marking:	WPQR-BASSAN-01	Welding position (ISO 6947):	PA
	Type of test piece:	PLATE	Welding process(es):	135 (MAG)
	Parent mat. designation 1:	EN 10025-2 S355J2+N EN 15608 Group 1,2	Parent mat. designation 2:	EN 10025-2 S355J2+N EN 15608 Group 1,2
	Material thickness 1 [mm]:	12 mm	Material thickness 2 [mm]:	12 mm
	Outside diameter 1 [mm]:	N/A	Outside diameter 2 [mm]:	N/A
Weld preparation	Joint type:	BW V Groove(EN 9692-1 Ref. no: 1.3)	Included angle [°]:	50°-60°
	Face height [mm]:	2	Root gap [mm]:	1-2
	Backing:	---	Gouging:	Yes. After 6. pass with grinding

Run no.	Welding process	Size of filler material [mm]	Current [A]	Voltage [V]	Type of current /polarity	Wire feed speed [m/min]	Travel speed [cm/min]	Heat input [kJ/mm]	Interpass temp. [°C]	Metal transfer
1	135	1,2	130-140	18-20	DC(+)		15,1	0,74-0,89	---	Spray Transfer
2	135	1,2	240-250	29-31	DC(+)		42,0	0,79-0,88	75	Spray Transfer
3	135	1,2	240-250	29-31	DC(+)		29,1	1,14-1,27	190	Spray Transfer
4	135	1,2	240-250	29-31	DC(+)		32,8	1,01-1,13	220	Spray Transfer
5	135	1,2	240-250	29-31	DC(+)		30,8	1,08-1,20	240	Spray Transfer
6	135	1,2	240-250	29-31	DC(+)		32,8	1,01-1,13	240	Spray Transfer

Filler material	Designation:	TS EN ISO 14341-A:11 ER 70 S-6 G3Si1
	Trade / manufacturer name:	LINCOLN / AS SG2
Flux / cored- or filled electrode	Designation:	---
	Trade name:	---
	Drying:	---
Shielding gas	Designation:	EN 14175 M24
	Flow rate [l/min]:	10-12
Backing gas	Designation:	---
	Flow rate [l/min]:	---
Tungsten electrode	Type:	N/A
	Size [mm]:	N/A
Oscillation	Details:	---
	Manufacturer:	---
Heat treatment	Preheat temperature [°C]:	Min.20°
	Interpass temperature [°C]:	Max.240°
	Post weld heat treatment:	---
	Post heating (hydrogen):	---

Attachment:

Examining body
TUV NORD
CARL AYDOĞAN
14.10.2023
Türkiye Tek. Kontrol ve Belg. A.Ş.

TÜV NORD Turkey Teknik Kontrol ve Belgelendirme A.Ş.

Test report of a welding procedure qualification (WPQR)
Test results

Certificate no.: WPQR-TUVNORD-2022/7635

Location of test:	BAŞSAN MAKİNA WORKSHOP	Examining body:	TÜV NORD Turkey Teknik Kontrol ve Belg. A.Ş.
pWPS no.:	Pwps-BASSAN-01	Order no.:	2174032281
Manufacturer:	BAŞSAN MAKİNA METAL İNŞAAT TİC. LTD. ŞTİ.	WPQR No.:	WPQR-BASSAN-01
Address:	SARAY MAH. 1076 SOK. NO:2/P KAHRAMANKAZAN		
Test specification:	DIN EN ISO 15614-1 (Level 2)		

Non destructive testing (Attachment PT-2174032281-001 ,UT-2174032281-001)

Visual testing: EN ISO 17637	Fulfilled	Radiographic testing: ---	---
Penetrant particle testing ---	---	Ultrasonic testing: EN ISO 17637	Fulfilled

Tensile tests TS EN ISO 4136 (attachment TENSILE- 2174032281-01)

Position / no.	Temp. [°C]	Re/Rp0,2/1,0 [MPa]	Rm [MPa]	A [%]	Z [%]	Fracture location	Result	Remark
Requirement			470-630					
1	22	386	529	22,85		Parent material	Fulfilled	
2	22	374	536	23,04		Parent material	Fulfilled	

Bend tests TS EN ISO 5173 (attachment BEND-2174032281-01)
with a former diameter of 40 mm 4 t

Position / no.	Kind	Bend angle	Elongation	Results
Requirement	Side Bend	180°		
1	Side Bend	180°		Fulfilled
2	Side Bend	180°		Fulfilled
3	Side Bend	180°		Fulfilled
4	Side Bend	180°		Fulfilled

Macrostructure EN ISO 17639

Attachment	Result	Attachment	Result
MACRO-2174032281-17	Fulfilled		

Impact tests with specimen type: KV300/10 x 10 x55 mm EN ISO 9016 (attachment IMPACT- 2174032281-01)

Position / no.	Notch location / direction	Temperature [°C]	Values [J]			Average [J]	Result	Remark / Fracture appearance
			K1	K2	K3			
Requirement		+20	Min.27 J			Min.27 J	Fulfilled	
1	VHT	20	93.01	107.70	99.44	100.05	Fulfilled	---
2	VWT	20	89.06	87.16	77.97	67.78	Fulfilled	---

Hardness tests type (test load): HV 10 (attachment HARDNESS- 2174032281-02)

Maximum values	Requirement	Top layer	Centre	Root	Result	Remark
Parent material	Max. 380	See Hardening Test Result			Fulfilled	
HAZ	Max. 380				Fulfilled	
Weld material	Max. 380				Fulfilled	

Additional tests: ---

Remarks: ---

Test results:

The tests have been executed in accordance with the inspection basis as stated above.

The test requirements are fulfilled.

Examiner

Can AYDOĞAN

29.11.2022

TÜV NORD Turkey Teknik Kontrol ve Belgelendirme A.Ş.

Approved By

Oğuzcan ALTUĞ

TÜV NORD Turkey Teknik Kontrol ve Belgelendirme A.Ş.

TEST CERTIFICATE FOR A WELDING PROCEDURE QUALIFICATION RECORD (WPQR)

Certificate no.: WPQR-TUVNORD-2022/7636

WPQR no.: WPQR-BASSAN-03

Examining
body:

TÜV NORD Turkey Teknik Kontrol ve
Belgelendirme A.Ş.

Manufacturer: BAŞSAN MAKİNA METAL İNŞAAT TİC. LTD. ŞTİ.

Order no.:

2174032281

Address: SARAY MAH. 1076 SOK. NO:2/P KAHRAMANKAZAN

Test basis: DIN EN ISO 15614-1 (Level 2)

	Test piece	Range of qualification
Welding process(es) acc. ISO 4063:	121 - Submerged Arc Welding with solid wire electrode(mechanized)	121 - Submerged Arc Welding with solid wire electrode(mechanized)
Deposited thickness(es) s [mm]:	-	-
Product form:	Plate	Plate and Tube
Type of joint and weld:	FW	FW
Parent material (sub)group(s):	EN 10025-2 S355J2+N EN 15608 Group 1,2	EN 10025-2 S355J2+N (ISO/TR 15608 Steels with a specified minimum yield strength ReH ≤ 360 N/mm2 for material group 1)
Parent material thickness t [mm]:	30 mm	≥ 5mm
Throat thickness [mm]:	Multi Layer:15mm Single Layer:7mm	Multi Layer:No Restriction Single Layer: 5.25 to 10.5 mm
Single layer / multi layer:	Multi Layer/Single Layer	Multi Layer/Single Layer
Outside pipe diameter [mm]:	N/A	When D>500 mm or when D>150 mm welded in PC,PF or PA rotated position
Filler material designation:	EN ISO 14171 : S2Si	Smilar
Filler material maker:	LINCOLN / AS S2	---
Filler material size [mm]:	Ø4,0	Ø1,2 / Permitted the change size of filler material when heat input requirements satisfied
Designation of shielding gas / flux:	EN ISO 14174 S A AB 1	Smilar
Designation of backing gas:	---	---
Type of welding current and polarity:	DC (+)	DC (+)
Transfer mode acc. ISO 4063:	-	-
Heat input [kJ/mm]:	0,89-1,31	0,66-1,31
Welding position(s) acc. ISO 6947:	PB	PB , When neither impact nor hardness requirements are specified, welding of the test piece in any position (pipe or plate) qualifies for welding in all positions (pipe or plate). A decrease of more than 50 °C from the recorded preheating temperature on the WPQR requires a re-qualification An increase of more than 50 °C in the maximum interpass temperature reached in the welding procedure test shall require re-qualification.
Preheat temperature [°C]:	Min.100°	---
Interpass temperature [°C]:	Max.350°	---
Post heating for hydrogen release:	---	---
Post weld heat treatment:	---	---
Other information:	---	---

We confirm that the statements in this record are correct and that the test pieces were prepared, welded, tested and have fulfilled the requirements in accordance with the test basis.

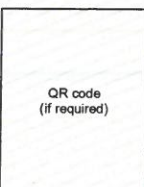
This certificate is issued under the scope of ISO/IEC 17020 accreditation by TÜRKAK. The accreditation status would be verified via <https://secure.turkak.org.tr/kapsam/search> under accreditation number of AB-0100-M.

Remarks: An evidence of notch impact strength has not been executed. 22°

Attachment:

Location: İstanbul

Date: 11.01.2023



PED-2354-

Examining body
TUV NORD
T.C. EN ISO/IEC 17023
AB-0100-M
TUV NORD Turkey Teknik Kontrol ve
Bellelendirme A.Ş.

TUV NORD Turkey Teknik Kontrol ve
Bellelendirme A.Ş.

Test report of a welding procedure qualification (WPQR)
Test results

Certificate no.: WPQR-TUVNORD-2022/7636

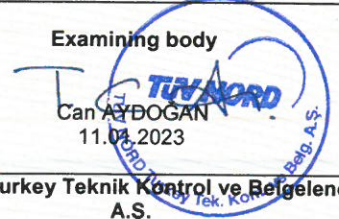
General test details	Location of test:	BASSAN MAKİNA WORKSHOP	Examining body:	TÜV NORD Turkey Teknik Kontrol ve Belg. A.Ş.
	pWPS no.:	Pwps-BASSAN-PQR-03	Order no.:	2174032281
	WPQR no.:	WPQR-BASSAN-03	Joining personal name:	EMRAH BAŞ
	Manufacturer:	BASSAN MAKİNA METAL İNŞAAT TİC. LTD. ŞTİ.	Date of welding:	04.10.2022
	Address:	SARAY MAH. 1076 SOK. NO:2/P KAHRAMANKAZAN		
Test piece	Marking:	WPQR-BASSAN-03	Welding position (ISO 6947):	PB
	Type of test piece:	PLATE	Welding process(es):	121
	Parent mat. designation 1:	EN 10025-2 S355J2+N EN 15608 Group 1,2	Parent mat. designation 2:	EN 10025-2 S355J2+N EN 15608 Group 1,2
	Material thickness 1 [mm]:	30 mm	Material thickness 2 [mm]:	30 mm
	Outside diameter 1 [mm]:	N/A	Outside diameter 2 [mm]:	N/A
Weld preparation	Joint type:	FW	Included angle [°]:	---
	Face height [mm]:	---	Root gap [mm]:	---
	Backing:	---	Gouging:	---

Run no.	Welding process	Size of filler material [mm]	Current [A]	Voltage [V]	Type of current /polarity	Wire feed speed [m/min]	Travel speed [cm/min]	Heat input [kJ/mm]	Interpass temp. [°C]	Metal transfer
1	121	4,0	240-250	30-31	DC(+)		32,8	1,05-1,15	---	
2	121	4,0	240-260	31-33	DC(+)		38,0	0,91-1,05	Max.350°	
3	121	4,0	235-255	31-33	DC(+)		38,0	0,89-1,03	Max.350°	
4	121	4,0	230-250	30-32	DC(+)		29,1	1,13-1,31	---	

Filler material	Designation:	EN ISO 14171 : S2Si
	Trade / manufacturer name:	LINCOLN / AS S2
Flux / cored- or filled electrode	Designation:	EN ISO 14174 S A AB 1
	Trade name:	LINCOLN
	Drying:	AS FX-B110
Shielding gas	Designation:	---
	Flow rate [l/min]:	---
Backing gas	Designation:	---
	Flow rate [l/min]:	---
Tungsten electrode	Type:	N/A
	Size [mm]:	N/A
Oscillation	Details:	---
	Manufacturer:	---
Heat treatment	Preheat temperature [°C]:	Min.100°
	Interpass temperature [°C]:	Max.350°
	Post weld heat treatment:	---
	Post heating (hydrogen):	---

Attachment:

Examining body



TÜV NORD Turkey Teknik Kontrol ve Belgelendirme A.Ş.

Test report of a welding procedure qualification (WPQR)
Test results

Certificate no.: WPQR-TUVNORD-2022/7636

Location of test:	BAŞSAN MAKİNA WORKSHOP	Examining body:	TUV NORD Turkey Teknik Kontrol ve Belg. A.Ş.
pWPS no.:	Pwps-BASSAN-PQR-03	Order no.:	2174032281
Manufacturer:	BAŞSAN MAKİNA METAL İNŞAAT TİC. LTD. ŞTİ.	WPQR No.:	WPQR-BASSAN-03
Address:	SARAY MAH. 1076 SOK. NO:2/P KAHRAMANKAZAN		
Test specification:	DIN EN ISO 15614-1 (Level 2)		

Non destructive testing (Attachment VT-2174032281-03 ,MT-2174032281-03)

Visual testing: EN ISO 17637	Fulfilled	Radiographic testing: ---	---
Magnetic particle testing MT-2174032281-3	Fulfilled	Ultrasonic testing: ---	---

Tensile tests --- (attachment -)

Position / no.	Temp. [°C]	Re/Rp0,2/1,0 [MPa]	Rm [MPa]	A [%]	Z [%]	Fracture location	Result	Remark
Requirement	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---

Bend tests --- (attachment ---) with a former diameter of ---

Position / no.	Kind	Bend angle	Elongation	Results
Requirement	---	---	---	---
1	---	---	---	---
2	---	---	---	---
3	---	---	---	---
4	---	---	---	---

Macrostructure EN ISO 17639

Attachment	Result	Attachment	Result
MAKRO-2174032281-20 MAKRO-2174032281-21	Fulfilled	---	---

Impact tests with specimen type: --- --- (attachment ---)

Position / no.	Notch location / direction	Temperature [°C]	Values [J]	Average [J]	Result	Remark / Fracture appearance
			K1 K2 K3			
Requirement	---	---	---	---	---	---
1	---	---	---	---	---	---
1	---	---	---	---	---	---

Hardness tests type (test load): HV 10 (attachment HARDNESS- 2174032281-03)

Maximum values	Requirement	Top layer	Centre	Root	Result	Remark
Parent material	Max. 380	See Hardening Test Result			Fulfilled	---
HAZ	Max. 380				Fulfilled	---
Weld material	Max. 380				Fulfilled	---

Additional tests: ---

Remarks: ---

Test results:

The tests have been executed in accordance with the inspection basis as stated above.

The test requirements are fulfilled.

Examiner

Can AYDOĞAN

29.11.2022

Approved By

Oğuzcan ALTUĞ

29.11.2022

TUV NORD Turkey Teknik Kontrol ve Belgelendirme A.Ş.

TUV NORD Turkey Teknik Kontrol ve Belgelendirme A.Ş.

TEST CERTIFICATE FOR A WELDING PROCEDURE QUALIFICATION RECORD (WPQR)

Certificate no.: WPQR-TUVNORD-2022/7637

WPQR no.: WPQR-BASSAN-02

Examining
body:

TÜV NORD Turkey Teknik Kontrol ve
Belgelendirme A.Ş.

Manufacturer: BAŞSAN MAKİNA METAL İNŞAAT TİC. LTD. ŞTİ.

Order no.:

2174032281

Address: SARAY MAH. 1076 SOK. NO:2/P KAHRAMANKAZAN

Test basis: DIN EN ISO 15614-1 (Level 2)

	Test piece	Range of qualification
Welding process(es) acc. ISO 4063:	135(MAG)(Semi automatic)	135(MAG)(Semi automatic)
Deposited thickness(es) s [mm]:	-	-
Product form:	Plate	Plate and Tube
Type of joint and weld:	FW	FW
Parent material (sub)group(s):	EN 10025-2 S355J2+N EN 15608 Group 1,2	EN 10025-2 S355J2+N (ISO/TR 15608 Steels with a specified minimum yield strength ReH ≤ 360 N/mm2 for material group 1)
Parent material thickness t [mm]:	30 mm	≥ 5mm
Throat thickness [mm]:	Multi Layer:15mm I Single Layer:7mm	Multi Layer:No Restriction I Single Layer: 5.25 to 10.5 mm
Single layer / multi layer:	Multi Layer/Single Layer	Multi Layer/Single Layer
Outside pipe diameter [mm]:	N/A	When D>500 mm or when D>150 mm welded in PC,PF or PA rotated position
Filler material designation:	TS EN ISO 14341-A:11 ER 70 S-6 G3Si1	Similar
Filler material maker:	LINCOLN / AS SG2	—
Filler material size [mm]:	Ø1,2	Ø1,2 / Permitted the change size of filler material when heat input requirements satisfied
Designation of shielding gas / flux:	EN 14175 M24	Similar
Designation of backing gas:	—	—
Type of welding current and polarity:	DC (+)	DC (+)
Transfer mode acc. ISO 4063:	Spray Transfer	Spray , Pulse or Globular Transfer
Heat input [kJ/mm]:	0,89-1,31	0,66-1,31
Welding position(s) acc. ISO 6947:	PB	PB , When neither impact nor hardness requirements are specified, welding of the test piece in any position (pipe or plate) qualifies for welding in all positions (pipe or plate). A decrease of more than 50 °C from the recorded preheating temperature on the WPQR requires a re-qualification An increase of more than 50 °C in the maximum interpass temperature reached in the welding procedure test shall require re-qualification.
Preheat temperature [°C]:	20°	—
Interpass temperature [°C]:	Max.350°	—
Post heating for hydrogen release:	—	—
Post weld heat treatment:	—	—
Other information:	—	—

We confirm that the statements in this record are correct and that the test pieces were prepared, welded, tested and have fulfilled the requirements in accordance with the test basis.

This certificate is issued under the scope of ISO/IEC 17020 accreditation by TÜRKAK. The accreditation status would be verified via <https://secure.turkak.org.tr/kapsam/search> under accreditation number of AB-0100-M.

Remarks: An evidence of notch impact strength has not been executed.

Attachment:

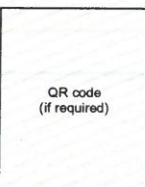
Location: İstanbul

Date: 11.01.2023

Examining body

Can AYDOĞAN

TUV NORD
TUV NORD Turkey Teknik Kontrol ve
Belgelendirme A.Ş.



PED-2354-

Test report of a welding procedure qualification (WPQR)
Test results

Certificate no.: WPQR-TUVNORD-2022/7637

General test details	Location of test:	BAŞSAN MAKİNA WORKSHOP	Examining body:	TÜV NORD Turkey Teknik Kontrol ve Belg. A.Ş.
	pWPS no.:	Pwps-BASSAN-PQR-02	Order no.:	2174032281
	WPQR no.:	WPQR-BASSAN-02	Joining personal name:	EMRAH BAŞ
	Manufacturer:	BAŞSAN MAKİNA METAL İNŞAAT TİC. LTD. ŞTİ.	Date of welding:	04.10.2022
	Address:	SARAY MAH. 1076 SOK. NO:2/P KAHRAMANKAZAN		
Test piece	Marking:	WPQR-BASSAN-02	Welding position (ISO 6947):	PB
	Type of test piece:	PLATE	Welding process(es):	135 (MAG)
	Parent mat. designation 1:	EN 10025-2 S355J2+N EN 15608 Group 1,2	Parent mat. designation 2:	EN 10025-2 S355J2+N EN 15608 Group 1,2
	Material thickness 1 [mm]:	30 mm	Material thickness 2 [mm]:	30 mm
	Outside diameter 1 [mm]:	N/A	Outside diameter 2 [mm]:	N/A
Weld preparation	Joint type:	FW	Included angle [°]:	---
	Face height [mm]:	---	Root gap [mm]:	---
	Backing:	---	Gouging:	---

Run no.	Welding process	Size of filler material [mm]	Current [A]	Voltage [V]	Type of current /polarity	Wire feed speed [m/min]	Travel speed [cm/min]	Heat input [kJ/mm]	Interpass temp. [°C]	Metal transfer
1	135	1,2	240-250	30-31	DC(+)		32,8	1,05-1,15	---	Spray Transfer
2	135	1,2	240-260	31-33	DC(+)		38,0	0,91-1,05	Max.350°	Spray Transfer
3	135	1,2	235-255	31-33	DC(+)		38,0	0,89-1,03	Max.350°	Spray Transfer
4	135	1,2	230-250	30-32	DC(+)		29,1	1,13-1,31	---	Spray Transfer

Filler material	Designation:	TS EN ISO 14341-A:11 ER 70 S-6 G3Si1
	Trade / manufacturer name:	LINCOLN / AS SG2
Flux / cored- or filled electrode	Designation:	---
	Trade name:	---
	Drying:	---
Shielding gas	Designation:	EN 14175 M24
	Flow rate [l/min]:	10-12
Backing gas	Designation:	---
	Flow rate [l/min]:	---
Tungsten electrode	Type:	N/A
	Size [mm]:	N/A
Oscillation	Details:	---
	Manufacturer:	---
Heat treatment	Preheat temperature [°C]:	Min.20°
	Interpass temperature [°C]:	Max.350°
	Post weld heat treatment:	---
	Post heating (hydrogen):	---

Attachment:

Examining body

Can AYDOĞAN
11.01.2023

TÜV NORD Turkey Teknik Kontrol ve Belgelendirme A.Ş.

Test report of a welding procedure qualification (WPQR)
Test results

Certificate no.: WPQR-TUVNORD-2022/7637

Location of test:	BAŞSAN MAKİNA WORKSHOP	Examining body:	TÜV NORD Turkey Teknik Kontrol ve Belg. A.Ş.
pWPS no.:	Pwps-BASSAN-PQR-02	Order no.:	2174032281
Manufacturer:	BAŞSAN MAKİNA METAL İNŞAAT TİC. LTD. ŞTİ.	WPQR No.:	WPQR-BASSAN-02
Address:	SARAY MAH. 1076 SOK. NO:2/P KAHRAMANKAZAN		
Test specification:	DIN EN ISO 15614-1 (Level 2)		

Non destructive testing (Attachment VT-2174032281-02 ,MT-2174032281-02)

Visual testing: EN ISO 17637	Fulfilled	Radiographic testing: ---	---
Magnetic particle testing MT-2174032281-2	Fulfilled	Ultrasonic testing: ---	---

Tensile tests --- (attachment -)

Position / no.	Temp. [°C]	Re/Rp0,2/1,0 [MPa]	Rm [MPa]	A [%]	Z [%]	Fracture location	Result	Remark
Requirement	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---

Bend tests --- (attachment ---) with a former diameter of ---

Position / no.	Kind	Bend angle	Elongation	Results	Attachment	Result	Attachment	Result
Requirement	---	---	---	---	MAKRO-2174032281-18 MAKRO-2174032281-19	Fulfilled	---	---
1	---	---	---	---				
2	---	---	---	---				
3	---	---	---	---				
4	---	---	---	---				

Impact tests with specimen type: --- --- (attachment ---)

Position / no.	Notch location / direction	Temperature [°C]	Values [J]	Average [J]	Result	Remark / Fracture appearance
			K1 K2 K3			
Requirement	---	---	---	---	---	---
1	---	---	---	---	---	---
1	---	---	---	---	---	---

Hardness tests type (test load): HV 10 (attachment HARDNESS- 2174032281-04)

Maximum values	Requirement	Top layer	Centre	Root	Result	Remark
Parent material	Max. 380	See Hardening Test Result			Fulfilled	---
HAZ	Max. 380				Fulfilled	---
Weld material	Max. 380				Fulfilled	---

Additional tests: ---

Remarks: ---

Test results:

The tests have been executed in accordance with the inspection basis as stated above.

The test requirements are fulfilled.

Examiner

Can AYDOĞAN

29.11.2022

Approved By

Öğuzcan ALTUĞ

29.11.2022

TÜV NORD Turkey Teknik Kontrol ve Belgelendirme A.Ş.

TÜV NORD Turkey Teknik Kontrol ve Belgelendirme A.Ş.