




Aufstufung Verfahrensprüfung

Basis V-5/5-400-40-8
Rev.: 93 vom 20.10.2022

IRB- Werkst.-Grp	TUV VP-Nr.	Anwendungsbereich			Gültig bis	
		Werkstoff	Prozeß	Verb.		
1	1.0	P355NH	121	BW	07/21	
	1.0 W	P355NH	121	BW/St	03/22	
	1.1	P355NH	141	BW/St	12/22	
	1.2	P355NH	141/111	BW/St	12/22	
	1.4	P355NH	141/136	BW/St	05/23	
	1.4.1	P355NHNL2	136	FW	12/22	
	1.5	St 35.8	311	BW	07/10	
	1.8	P 460 NH	141/136	BW/St	10/13	
	1.8.1	P 460 NHNL2	141/136	BW/St	07/20	
	1.7	P 460 NH	141/111	BW	10/13	
1.8	WSTE 460	141	BW/St	08/12		
1.9	WT-Rohreinschw. C-Stahl	141 / Orbital	Stirnfachnaht	08/22		
1.10 W	WB36 / P255GH	141 / Orbital	Stirnfachnaht	03/16		
2	2.1	P355NL1/NL2	141	BW/St	12/22	
	2.1	P355NL2 / Bl 40/10/8/5 mm / Gr.1/2 ASME	141	BW/St	04/18	
	2.1.1 W	P355NL2	141	BW	06/21	
	2.2	P355NL1	141/111	BW/St	06/22	
	2.5	P355NL1	141/136	BW/St	12/22	
	2.7	12Ni14-1.4541	141	BW	06/20	
	4.1	13CrMo44	141/111	BW	12/22	
	4.1.1	13CrMo4-6	141/136	BW	12/22	
	4.2	13CrMo4-5	141	BW/St	12/22	
	4.2.1 W	13CrMo44 WT Rohreinschw.	141 / Orbital	Stirnfachnaht	02/16	
4	4.2.2	13CrMo4-5 / 18Mo3	141	BW/FW	12/19	
	4.3	10CrMo9-10	141/111	BW	02/04	
	4.4	10CrMo9-10	141	BW	12/22	
	4.4.1	10CrMo9-10 / 13CrMo4-5	141	BW/FW	12/19	
	4.5	10CrMo 9-10 / 1.4541	141	St	09/10	
	4.8 PL	10CrMo 9-10 / 2.4806	141	Auftragschw.	05/13	
	4.7 W	WB36 / 1.6366	141	BW	03/16	
	4.8 W	WB36 / 1.6366	141 / 111	BW	08/16	
	4.9 PL	13CrMo4-5 / Plattend 1.4551	141	Auftragschw.	04/16	
	4.10 PL	13CrMo4-5 / Plattend 1.4551	111	Auftragschw.	04/16	
5	4.11 W	12CrMo19-5	141	BW/FW	12/19	
	4.12 W	12CrMo19-5 / 10CrMo9-10	141 / Orbital	Stirnfachnaht	11/19	
	5.1	1.4571 - C-Stahl	141	BW	05/23	
	5.1.1	1.4571 - C-Stahl (Inconel)	141	BW	05/23	
	5.2	1.4571 - C-Stahl	141/111	BW	12/22	
	5.5	1.4571 - C-Stahl	141/136	BW	12/22	
	5.4	1.4404 - C-Stahl	141	Auftragschw.	09/07	
	5.5	P355NH Plattend 1.4541	141 / 136	BW	11/09	
	5.6 PL	P355NH Plattend 1.4571	136	Auftragschw.	05/16	
	7.1	1.4541 / 1.4571	141	BW/St	08/22	
7	7.1	18Mo3 / 1.4009 plattend	141	Auftragschw.	11/19	
	7.1 W	1.4541 / 1.4571	141	BW/St	04/22	
	7.2	1.4361	141	BW	04/17	
	7.3	1.4541 / 1.4571	141/111	BW	01/23	
	7.4	18Mo3 / 1.4009 plattend	111	Auftragschw.	11/19	
	7.4	1.4571	141/136	BW	05/23	
	7.4.1	1.4571	136	FW	12/22	
	7.5	Halbroherschlange 1.4571	141	FW/BW	07/14	
	7.6	WT-Rohreinschw. 1.4571	141 / Orbital	Stirnfachnaht	08/22	
	7.7	1.4541 / 1.4571	121	BW/St	08/21	
8	7.8	1.4541 / 1.4571	121	BW/St	08/21	
	7.9	1.4541 / 1.4571	141/121	BW/St	01/23	
	8.1	WT-Rohreinschw. 1.4547	141 / Orbital	Stirnfachnaht	08/12	
	9.1	1.4439	141	BW/St	02/03	
	9.2	1.4529 / C-Stahl	141	BW	06/17	
	9.3.1	1.4529 / 1.4539	141 / Orbital	Stirnfachnaht	08/21	
	9.3.2	1.4562	141 / Orbital	Stirnfachnaht	04/20	
	9.4	1.4539	141	BW/St	07/20	
	9.5	1.4529 / 1.4539	141	BW/St	03/23	
	9.6	1.4539 / 1.4571	141 / Orbital	Stirnfachnaht	12/11	
9	9.7	1.4529 / 1.4539	141 / 111	BW	02/17	
	9.8	1.4539 - 2.4360	141	BW	09/20	
	9.9	1.4571-1.4547	141	BW	03/14	
	9.10	1.4539 - 1.4462	141	BW / FW	08/14	
	9.11	1.4562 - 1.4571	141	BW / FW	03/20	
	9.11 W	1.4529 / 1.4571	141	FW	06/22	
	10.1	1.4529 - C-Stahl	141	BW	03/01	
	10.2	P355NH Plattend 2.4831	141	Auftragschw.	05/16	
	10.3	P355NH Plattend 2.4621	111	Auftragschw.	05/16	
	11.1	NiCr	141	BW	11/17	
10	11.1.1	2.4818 / 1.4571	141	BW	08/16	
	11.1.2	2.4818 / 18Mo3	141	BW	07/15	
	11.2	2.4858	141	BW	09/22	
	11.2.1	2.4858	141	BW	09/22	
	11.3	P355NL1 / 2.4858	141	Auftragschw.	09/12	
	11.4	P355NH / 2.4858	141/111	BW	10/12	
	11.5	P355NH / 2.4858	141	BW	08/18	
	12.1	NiCu30Fe	141	BW	11/22	
	12.2	NiCu30Fe - C-Stahl	141	BW	11/22	
	12.3	NiCu30Fe	141 / Orbital	Stirnfachnaht	03/12	
11	12.5	P355NL1 / 2.4360	111	Auftragschw.	10/13	
	12.5.1	P355NL1 / 2.4360	131	Auftragschw.	10/13	
	13.1	CuN30Mn1Fe	141	BW/St	02/17	
	13.2	CuN30Mn1Fe / C-Stahl	141	BW	03/15	
	13.3	CuN30Mn1Fe / P265GH	141 / Orbital	Stirnfachnaht	08/17	
	13.4	CuN30Mn1Fe / NiCu30Fe	141	BW	02/17	
	13.5	P355NH / CuMn2	141/111	BW	11/08	
	13.6	P355NH / Kupfer	141	Auftragschw.	10/12	
	13.6.1	P355NH / Kupfer	141/111	Auftragschw.	10/12	
	13.7	CuMn2 Rohreinschw.	141	Kehnaht 2lg.	11/08	
12	14.1	LC-Nickel	141	BW	07/23	
	14.2	Nickel / C-Stahl	141	FW	09/07	
	14.3	Nickel / C-Stahl	141	BW	09/19	
	14.4	Nickel / C-Stahl	141	Auftragschw.	06/07	
	14.5	Nickel / Rohreinschw. füllend	141	Kehnaht 1lg.	08/18	
	15.1	Hastelloy B4	141	BW	09/00	
	16.1	Hastelloy C276	141	BW	11/22	
	16.1	Hastelloy C22	141	BW	11/22	
	16.1	Microfer alloy 59	141	BW/St	11/22	
	16.1	Hastelloy C4	141	BW	11/22	
13	16.1.1	2.4819 / C-Stahl	141	BW	02/17	
	16.1.2	2.4810 / 1.4462	141	BW	10/12	
	16.1.3	2.4810 / 1.4404	141	BW	10/12	
	16.2	2.4817	141	BW	11/11	
	16.2.1	2.4817 / 1.4571	141	BW	11/11	
	16.2.2	2.4810	141 / 111	BW	11/12	
	16.2.3	P355NH / 2.4610	141	Auftragschw.	03/18	
	16.2.4	P355NH / 2.4610	111	Auftragschw.	03/18	
	16.3	1.4539 - 2.4819	141	BW	01/03	
	16.4	Alloy 20	141	BW	09/10	
14	16.4.1	2.4699 / 2.4805	141	BW	03/13	
	16.5	Alloy 20 / Alloy 59	141	BW	03/13	
	16.6	C22.8 / 2.4860 plattend	141 / Orbital	Stirnfachnaht	02/09	
	16.7	Alloy 20 / C-Stahl	141	BW	01/09	
	16.8	Sandvik SAF 2507	141	BW	09/05	
	16.8	2.4810 - 2.4819	141 / Orbital	Stirnfachnaht	03/17	
	16.8.1	2.4810 - 1.4462	141 / Orbital	Stirnfachnaht	05/20	
	16.9	Alloy 59 / 1.4462	141	FW	08/08	
	16.10	Halbrohersch. 2.4810/P265GH	141	FW	01/12	
	17.1	Titan	141	BW/St	05/23	
15	19.0	1.4462	121	BW/St	02/22	
	19.1	1.4462 / SAF 2507	141	BW/St	01/16	
	19.2	1.4410 / SAF 2507	141	Orbital	09/07	
	19.3	1.4462 - C-Stahl	141	BW	07/21	
	19.3.1	P355NH / 1.4462	136	Auftragschw.	02/14	
	19.3.2	P355NH / 1.4462	111	Auftragschw.	02/14	
	19.4	1.4462	141	BW/St	04/22	
	19.5	1.4462	141/136	BW	05/23	
	19.6	1.4462 / C-Stahl	141/136	BW	02/09	
	19.7	1.4462 - 1.4571	141	BW	07/21	
16	19.8	1.4462 - 1.4462	141	Stirnfachnaht	03/23	
	19.9	2.4360 - 1.4462	141	BW	02/14	
	20.1	1.4876	141	BW	09/10	
	20.3	St 35.8 / Sandvik 353 MA	141	BW	05/02	
	20.5	2.4068-2.4858	141	BW	08/18	
	21					
	22	22.1	AMg 4.5 Mn	141	BW	

111 = SMAW 131 = GMAW 311 = OFW
 141 = GTAW 136 = FCAW 121 = UP
 BW = Butt weld St = Nozzle welding saamt FW = Groove weld


 Datum: 20.10.2022
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Listing procedure examination
 Basis V-5/5-400-40-8-1
 Rev.: 83 from 20.10.2022

IRB-material group	TUV VP-Nr.	material	application area	process	Verb.	valid to	
1	1.0	P355NH		121	BW	07/21	
	1.0 W	P355NH		121	BW/St	03/22	
	1.1	P355NH		141	BW/St	12/22	
	1.2	P355NH		141/111	BW/St	12/22	
	1.4	P355NH		141/136	BW/St	05/23	
	1.4.1	P355NHHL2		136	FW	12/22	
	1.5	St 35.8		311	BW	07/10	
	1.6	P 480 NH		141/136	BW/St	10/13	
	1.6.1	P 480 NHHL2		141/136	BW/St	07/20	
	1.7	P 480 NH		141/111	BW	10/13	
2	1.8	WSTE 480		141	BW/St	08/12	
	1.9	Tube to tube sheet joint C-Steel		141 / Orbital	end plane weld	08/22	
	1.10 W	WB36 / P235GH		141 / Orbital	end plane weld	03/16	
	2.1	P355NL1NL 2		141	BW/St	12/22	
	2.1	P355NL2 / Bl 40/10/6/5 mm / Gr.1/2 ASME		141	BW/St	04/19	
	2.1.1 W	P355NL2		141	BW	06/21	
	2.2	P355NL1		141/111	BW/St	06/22	
	2.5	P355NL1		141/136	BW/St	12/22	
	2.7	12Ni4.1.4541		141	BW	06/20	
	4.1	13CrMo4		141/111	BW	12/22	
4	4.1.1	13CrMo4-5		141/136	BW	12/22	
	4.2	13CrMo44		141	BW/St	12/22	
	4.2.1 W	13CrMo44 Tube to Tube sheet		141 / Orbital	end plane weld	02/16	
	4.2.2	13CrMo4-5 / 18Mo3		141	BW/FW	12/16	
	4.3	10CrMo9 10		141/111	BW	02/04	
	4.4	10CrMo9 10		141	BW	12/22	
	4.4.1	10CrMo9-10 / 13CrMo4-5		141	BW/FW	12/19	
	4.5	10CrMo 9-10 / 1.4541		141	St	09/10	
	4.6 PL	10CrMo 9-10 / 2.4806		141	build up welding	05/13	
	4.7 W	WB36 (1.8388)		141	BW	03/16	
5	4.8 W	WB36 (1.8388)		141 / 111	BW	08/16	
	4.9 PL	13CrMo4-5 / Cladded 1.4551		141	Cladding	04/16	
	4.10 PL	13CrMo4-5 / Cladded 1.4551		111	Cladding	04/16	
	4.11 W	12CrMo19-5		141	BW/FW	12/19	
	4.12 W	12CrMo19-5 / 10CrMo9-10		141 / Orbital	end plane weld	11/19	
	5.1	1.4571 - C-Steel		141	BW	05/23	
	5.1.1	1.4571 - C-Steel (Inconel)		141	BW	05/23	
	5.2	1.4571 - C-Steel		141/111	BW	12/22	
	5.3	1.4571 - C-Steel		141/136	BW	12/22	
	5.4	1.4404 - C-Steel		141	build up welding	06/07	
7	5.5	P355NH cladded 1.4541		141 / 136	BW	11/06	
	5.6 PL	P355NH cladded 1.4571		136	build up welding	05/16	
	7.1	1.4541 / 1.4571		141	BW/St	08/22	
	7.1	16Mo3 / 1.4009 platziert		141	Cladding	11/19	
	7.1 W	1.4541 / 1.4571		141	BW/St	04/22	
	7.2	1.4361		141	BW	04/17	
	7.3	1.4541 / 1.4571		141/111	BW	01/23	
	7.3	16Mo3 / 1.4009 platziert		111	Cladding	11/19	
	7.4	1.4571		141/136	BW	05/23	
	7.4.1	1.4571		136	FW	12/22	
8	7.5	half pipe coil 1.4571		141	FW/BW	07/14	
	7.6	Tube to tube sheet joint 1.4571		141 / Orbital	end plane weld	08/22	
	7.7	1.4541 / 1.4571		121	BW/St	08/21	
	7.8	1.4541 / 1.4571		141	BW/St	08/21	
	7.9	1.4541 / 1.4571		141/121	BW/St	01/23	
	8.1	Tube to Tube sheet joint 1.4547		141 / Orbital	end plane weld	08/12	
	9	9.1	1.4439		141	BW/St	02/03
		9.2	1.4529 / C-Stahl		141	BW	06/17
		9.3.1	1.4529 / 1.4539		141 / Orbital	end plane weld	08/21
		9.3.2	1.4562		141 / Orbital	end plane weld	04/20
9.4		1.4539		141	BW/St	07/20	
9.5		1.4529 / 1.4539		141	BW/St	03/23	
9.6		1.4539 / 1.4571		141 / Orbital	end plane weld	12/11	
9.7		1.4529 / 1.4539		141 / 111	BW	02/17	
9.8		1.4539 - 2.4980		141	BW	09/20	
9.9		1.4571-1.4547		141	BW	03/14	
10	9.10	1.4539 - 1.4462		141	BW / FW	08/14	
	9.11	1.4562 - 1.4571		141	BW / FW	03/20	
	9.11 W	1.4529 / 1.4571		141	FW	06/22	
	10.1	1.4529 - C-Stahl		141	BW	03/01	
	10.2	P355NH Cladded 2.4831		141	build up welding	05/16	
	10.3	P355NH Cladded 2.4621		111	build up welding	05/16	
	11.1	NiCr		141	BW	11/17	
	11.1.1	2.4818 / 1.4571		141	BW	08/16	
	11.1.2	2.4818 / 18Mo3		141	BW	07/15	
	11.2	2.4856		141	BW	09/22	
12	11.2.1	2.4856		141	BW	09/22	
	11.3	P355NH / 2.4856		141	build up welding	06/12	
	11.4	P355NH / 2.4856		141/111	BW	10/12	
	11.5	P355NH / 2.4856		141	BW	06/18	
	12.1	NiCu30Fe		141	BW	11/22	
	12.2	NiCu30Fe - C-Steel		141	BW	11/22	
	12.3	NiCu30Fe		141 / Orbital	end plane weld	03/12	
	12.5	P355NL 1 / 2.4360		111	build up welding	10/13	
	12.5.1	P355NL 1 / 2.4360		131	build up welding	10/13	
	13.1	CuNi30Mn1Fe		141	BW/St	02/17	
13	13.2	CuNi30Mn1Fe / C-Steel		141	BW	03/15	
	13.3	CuNi30Mn1Fe / P235GH		141 / Orbital	end plane weld	08/17	
	13.4	CuNi30Mn1Fe / NiCu30Fe		141	BW	02/17	
	13.5	P355NH / CuMn2		141/111	BW	11/08	
	13.6	P355NH / Kupfer		141	build up welding	10/12	
	13.6.1	P355NH / Kupfer		141/111	build up welding	10/12	
	13.7	CuMn2 tube to tube sheet joint			FW (2 layers)	11/08	
	14.1	LC-Nickel		141	BW	07/23	
	14.2	Nickel / C-Steel		141	FW	06/07	
	14	14.3	Nickel / C-Steel		141	BW	08/18
14.4		Nickel / C-Steel		141	build up welding	09/07	
14.5		Nickel / tube to tube sheet joint		141	Kehlnaht (1 layer)	08/18	
15.1		Hastelloy B4		141	BW	09/00	
16.1		Hastelloy C276		141	BW	11/22	
16.1		Hastelloy C22		141	BW	11/22	
16.1		Nicrofer alloy 56		141	BW/St	11/22	
16.1		Hastelloy C4		141	BW	11/22	
16.1.1		2.4818 / C-Stahl		141	BW	02/17	
16.1.2		2.4810 / 1.4462		141	BW	10/12	
16	16.1.3	2.4810 / 1.4404		141	BW	10/12	
	16.2	2.4817		141	BW	11/11	
	16.2.1	2.4817 / 1.4571		141	BW	11/11	
	16.2.2	2.4810		141 / 111	BW	11/12	
	16.2.3	P355NH / 2.4810		141	build up welding	03/16	
	16.2.4	P355NH / 2.4810		111	build up welding	03/16	
	16.3	1.4539 - 2.4819		141	BW	01/03	
	16.4	Alloy 20		141	BW	09/10	
	16.4.1	2.4880 / 2.4605		141	BW	03/13	
	16.5	Alloy 20 / Alloy 59		141	BW	02/06	
17	16.5	C22.8 / 2.4880 plattform		141 / Orbital	end plane weld	02/06	
	16.6	Alloy 20 / C-Stahl		141	BW	01/06	
	16.7	Sandvik SAF 2507		141	BW	06/05	
	16.8	2.4810 / 2.4819		141 / Orbital	end plane weld	03/17	
	16.8.1	2.4810 - 1.4462		141 / Orbital	end plane weld	05/20	
	16.9	Alloy 59 / 1.4462		141	FW	06/08	
	16.10	HalbrohreschN 2.4810P285GH		141	FW	01/12	
	17.1	Titan		141	BW/St	05/23	
	19.0	1.4462		121	BW/St	02/22	
	19	19.1	1.4462 / SAF 2507		141	BW/St	01/16
19.2		1.4410 / SAF 2507		141	Orbital	06/07	
19.3		1.4462 - C-Stahl		141	BW	07/21	
19.3.1		P355NH / 1.4462		136	build up welding	02/14	
19.3.2		P355NH / 1.4462		111	build up welding	02/14	
19.4		1.4462		141	BW/St	04/22	
19.5		1.4462		141/136	BW	10/22	
19.6		1.4462 / C-Steel		141/136	BW	02/06	
19.7		1.4462 - 1.4571		141	BW	07/21	
19.8		1.4462 - 1.4462		141	build up welding	03/23	
20	19.9	2.4380 - 1.4462		141	BW	02/14	
	20.1	1.4879		141	BW	09/10	
	20.3	St 35.8 / Sandvik 353 MA		141	BW	05/02	
	20.5	2.4088-2.4958		141	BW	08/16	
21							
22	22.1	AlMn 4.5 Mn		141	BW		

Remarks: 111 = SMAW 131 = GMAW 311 = OFW 141 = GTAW 136 = FCAW 121 = UP BW = Butt weld SI = Nozzle welding seamt FW = Groove weld

Date: 20.10.2022

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 Stöver Nina
 Datum: 2022.10.20
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