

Scope according to		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011(System 2+)
Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Manufacturer		Work	
Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions	Weight max
1	2	3	4	5	6
Technical Specifications		Requirements		Remarks	
Date: 04.04.18		Nationality: NL		Page No.: 1	
Rev.: 0 of: 26		Date: 04.04.18		TÜV Rheinland Industrie Service GmbH	
Thick-ness mm		Ø mm		Technical Regulations	
from Up to		from Up to		1=t / 2=kg	
6a 6b 7a 7b		8a 8b		↓ res ult	



1. Materials according to harmonized European standards (hEN) and European Approval for Materials (EAM) acc. Directive 2014/68/EU

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Material	EN 10028-2	EN 10028-3	EN 10028-7	EN 10216-1	EN 10216-2	EN 10216-3	EN 10216-4	EN 10216-5
Non-alloy and alloy steels with specified elevated temperature properties	b	b	b	b	b	b	b	b
Weldable fine grain steels, normalized	b	b	b	b	b	b	b	b
Stainless steels	b	b	b	b	b	b	b	b
Non-alloy steel tubes with spec. elev. temp. properties	b	b	b	b	b	b	b	b
Non-alloy and alloy steel tubes With spec. elev. temp. prop.	b	b	b	b	b	b	b	b
Alloy fine grain steel tubes	b	b	b	b	b	b	b	b
Non-alloy and alloy steel tubes With spec. low temp. prop.	b	b	b	b	b	b	b	b
Stainless steel tubes	b	b	b	b	b	b	b	b

Remarks	+AT = solution annealed	+AR = as rolled	+M = thermo mechanical treated	+N = normalized or normalizing formed	+I = isothermal	+NT = normalized and tempered	+QT = quenched and tempered	+S = soft annealed	+SR = stress relieved	+A = annealed	a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary	b = Delivery condition and dimension acc. to material specification
Blind flanges												
machined												
Fittings and Special parts machined												

Scope according to	<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011 (System 2+)
Company Name: NRG Special products B.V. Jan van der Heijdenstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Work		Page No..
Manufacturer		NL	04.04.18	2
Materials-term Materials-No.		Dimensions		Rev.: 0 of: 26
Cur	Material Specification	Delivery Cond.	Article Type of Product	Technical Specifications
1	2	3	4	5
			Thick-ness mm	Requirements
			from to	Technical Regulations
			6a 6b 7a 7b 8a 8b	
			Weight max	10
			1=t / 2=kg	
			↓ res ult	



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	EN 10217-1	EN 10217-2	EN 10217-3	EN 10217-4	EN 10217-5	EN 10217-6	EN 10217-7	EN 10222-2	Remarks
Non-alloy steel tubes with spec. room temp. prop.	b	b	b	b	b	b	b	b	
Elec. welded non-alloy and alloy steel tubes with spec. elev. temp. prop.	b	b	b	b	b	b	b	b	
Alloy fine grain steel tubes	b	b	b	b	b	b	b	b	
Elec. Welded non-alloy steel tubes with spec. low temp. prop.	b	b	b	b	b	b	b	b	
Subm. arc weld. non-alloy and alloy steel tubes with spec. elev. temp. prop.	b	b	b	b	b	b	b	b	
Subm. arc weld. non-alloy steel tubes with spec. low temp. prop.	b	b	b	b	b	b	b	b	
Stainless steel tubes	b	b	b	b	b	b	b	b	
Ferritic and martensitic steels with spec. elev. temp. prop.	b	b	b	b	b	b	b	b	

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	+AR = as rolled	+QT = quenched and tempered	b = Delivery condition and dimension acc. to material specification
	+M = thermo mechanical treated	+S = soft annealed	
	+N = normalized or normalizing formed	+SR = stress relieved	
	+I = Isothermal	+A = annealed	

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Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Manufacturer		
Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions
2	3	4	5	Thick-ness mm from to 6a 6b 7a 7b
1				Weight max 1=t / 2=kg 1 2
Nationality		Date	Page No..	Remarks
NL		04.04.18	3	TÜV Rheinland Industrie Service GmbH
Rev.: 0		of : 26		





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	Nickel steels with spec. low temp. properties	EN 10222-3	b	Flanges, Fittings and Special parts machined	1	8
Weldable fine grain steel with high proof strenght	EN 10222-4	b	b			
Martensitic, austenitic and austenitic-ferritic stainl. steel	EN 10222-5	b	b			
Stainless steel bars for pressure purposes	EN 10272	b	b			
Hot rolled weldable steel bars for pressure purposes with spec. elev. temp. prop.	EN 10273	b	b			

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Scope according to	<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011 (System 2+)
Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Work	Nationality	Date
Manufacturer		NL	04.04.18	Page No.. 4
Cur	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product
1	2	3	4	5
Dimensions		Weight max	Technical Specifications	Remarks
Thick-ness mm		1=t / 2=kg	Requirements	 
from to		↓	Technical Regulations	
6a 6b 7a 7b		8a 8b	9	10

2. Materials according to the AD 2000-Code

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Material	Delivery Cond.	Article Type of Product	Dimensions	Weight max	Technical Specifications	Remarks
Material Specification	Delivery Cond.	Article Type of Product	Thick-ness mm	Weight max	Requirements	Remarks
Material Specification	Delivery Cond.	Article Type of Product	from to	1=t / 2=kg	Requirements	Remarks
Material Specification	Delivery Cond.	Article Type of Product	from to	↓	Technical Regulations	Remarks
Material Specification	Delivery Cond.	Article Type of Product	6a 6b 7a 7b	8a 8b	9	10
Non-alloy and alloy steels with specified elevated temperature properties	b	Blind flanges	b	1	AD 2000 W1	
Weldable fine grain steels, normalized	b	machined	b		AD 2000 W1	
Stainless steels	b		b		AD 2000 W 2	
Non-ally steel tubes with spec. elev. temp. properties	b	Fittings and Special parts machined	b		AD 2000 W4	
Non-alloy and alloy steel tubes with spec. elev. temp. prop.	b		b		AD 2000 W4	
Alloy fine grain steel tubes	b		b		AD 2000 W4	
Non-alloy and alloy steel tubes With spec. low temp. prop.	b		b		AD 2000 W4	
Stainless steel tubes	b		b		AD 2000 W2	

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+N = normalized or normalizing formed	+SR = stress relieved	
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Manufacturer		Work	Nationality	Page No..
Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland			NL	5
Materials-term Materials-No.		Material Specification	Date	Rev.: 0 of : 26
2		3	04.04.18	TÜV Rheinland Industrie Service GmbH
Cur				
1				

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Material Specification	Delivery Cond.	Article Type of Product	Dimensions		Weight max	Technical Specifications Requirements	Remarks
			Thick-ness mm	Ø mm			
			from	to	1=t / 2=kg		
			6a	7a	8a		
			Up to	from to	↓ res ult		
			6b	7b	8b		
Non-alloy steel tubes with spec. room temp. prop.	b	Fittings and Special parts machined	b		1	AD 2000 W4/10	
Elec. welded non-alloy and alloy steel tubes with spec. elev. temp. prop.	b		b			AD 2000 W4/10	
Alloy fine grain steel tubes	b		b			AD 2000 W4/10	
Elec. Welded non-alloy steel tubes with spec. low temp. prop.	b		b			AD 2000 W4/10	
Subm. arc weld. non-alloy and alloy steel tubes with spec. elev. temp. prop.	b		b			AD 2000 W4/10	
Subm. arc weld. non-alloy steel tubes with spec. low temp. prop.	b		b			AD 2000 W4/10	
Stainless steel tubes	b		b			AD 2000 W2/10	
Ferritic and martensitic steels with spec. elev. temp. prop.	b		b			AD 2000 W2/9/10	

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 +A = annealed

a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary

Scope according to	<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011 (System 2+)
Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Manufacturer		
Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions
1	2	3	4	5
Nationality		Date	Page No..	Remarks
NL		04.04.18	6	TÜV Rheinland Industrie Service GmbH
Weight max		Technical Specifications		 
1=t / 2=kg		Requirements		
↓		Technical Regulations		
res ult		9		10

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	EN 10222-3	r	Flanges, fittings and special parts machined acc. to client drawings	r	1	8	AD 2000 W9/10/13	r - Delivery condition acc. to EN 10222-3.
Nickel steels with spec. low temp. properties	EN 10222-3	r					AD 2000 W9/10/13	s - Delivery condition acc. to EN 10222-4.
Weldable fine grain steel with high proof strenght	EN 10222-4	s					AD 2000 W2/9/10	t - Delivery condition acc. to EN 10222-5.
Martensitic, austenitic and austenitic-ferritic stainl. steel	EN 10222-5	t					AD 2000 W2/9/10	u - Delivery condition acc. to EN 10272
Stainless steel bars for pressure purposes	EN 10272	u					AD 2000 W9/10/13	v - Delivery condition acc. to EN 10273.
Hot rolled weldable steel bars for pressure purposes with spec. elev. temp. prop.	EN 10273	v						

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Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Manufacturer		Nationality	Date
				NL	04.04.18
				Page No.:	7
				Rev.: 0 of:	26
Cur	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions
					Thick-ness mm
					from Up to
					from 6a 6b 7a 7b
1	2	3	4	5	6a 6b 7a 7b
					Weight max
					1=t / 2=kg
					↓ res ult
					8a 8b
					9
					10





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Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions	Weight max	Technical Specifications Requirements	Remarks
P275NH/1.0487	EN 10028-3 EN 10273	+N	Flanges, fittings and special parts machined acc. to client	0 250 0 150 0 70	1	AD 2000 W1 AD 2000 W9/13 AD 2000 W9/12/13 AD 2000 W9/12/13	VdTÜV 352/1*
P285QH/1.0477 P285QH/1.0478 P355N/1.0562	EN 10222-4 EN 10222-4 EN 10028-3 EN 10216-3 EN 10217-3	+N +QT +N		70 400 0 250 0 100 0 40 0 70 0 400		AD 2000 W1 AD 2000 W4/12 AD 2000 W4/12	VdTÜV 352/3* VdTÜV 352/3* VdTÜV 354/1-2*
P355NH/1.0565	EN 10028-3 EN 10216-3 EN 10217-3 EN 10222-4	+N		0 150 0 250 0 100 0 40 0 70 0 400		AD 2000 W1 AD 2000 W4/12 AD 2000 W4/12 AD 2000 W9/12/13	VdTÜV 354/1-3*
P355QH/1.0571 P420NH/1.8932	EN 10222-4 EN 10222-4	+QT +N		70 400 0 70		AD 2000 W9/12/13 AD 2000 W9/12/13	VdTÜV 354/3* VdTÜV 356/1+3*

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 +SR = stress relieved
 +A = annealed
 * a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary
 The manufacturer of material must be listed in the VdTÜV-Werkstoffblatt

Scope according to	<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011(System 2+)
Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Manufacturer		
Cur	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product
1	2	3	4	5
Work		Dimensions	Weight max	Technical Specifications
Nationality		Thick-ness mm	1=t / 2=kg	Requirements
Date		from to	↓ res ult	Technical Regulations
04.04.18		6a 6b 7a 7b	8a 8b	9
Rev.: 0 of: 26		10		10
Page No..		Remarks		
8		 		
TÜV Rheinland Industrie Service GmbH				

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Materials	Material Specification	Delivery Cond.	Article Type of Product	Dimensions	Weight max	Technical Specifications	Requirements	Technical Regulations	Remarks
Materials	Material Specification	Delivery Cond.	Article Type of Product	Thick-ness mm	from to	from to	from to	1=t / 2=kg	Technical Regulations
Materials	Material Specification	Delivery Cond.	Article Type of Product	mm	6a 6b 7a 7b	8a 8b	9	10	Technical Regulations
P460N/1.8905	EN 10028-3 EN 10216-3 EN 10217-3	+N	Flanges, fittings and special parts	0 250 0 100 0 40		1	8	AD 2000 W1 AD 2000 W4/12 AD 2000 W4/12	VdTÜV 357/1-2*
P460NH/1.8935	EN 10028-3 EN 10216-3 EN 10217-3 EN 10273	+N	machined acc. to client	0 100 0 100 0 40 0 150				AD 2000 W1 AD 2000 W4/12 AD 2000 W4/12 AD 2000 W9/12/13	VdTÜV/357/1*
20MnMoNi4-5/1.6311	EN 10028-2	+QT		0 250				AD 2000 W1/12/13	VdTÜV 440/1+3*
15NiCuMoNb5-6-4/1.6368	EN 10028-2 EN 10216-2	+NT,QT		0 200 0 80				AD 2000 W1 AD 2000 W4/12/13	VdTÜV 377/1-3*
12CrMo9-10/1.7375	EN 10028-2	+NT, QT		0 250				AD 2000 W1	VdTÜV 404/1*
X12CrMo5/1.7362	EN 10028-2	+NT, QT		0 250				AD 2000 W19/13	VdTÜV 007/1-3*
X11CrMo5/1.7362	EN 10216-2	+I,NT,QT		0 100				AD 2000 W4/12	
X11CrMo9-1/1.7386	EN 10216-2	+I,NT,QT		0 60				AD 2000 W4/12	VdTÜV 109*
X10CrMoVNb9-1/1.4903	EN 10216-2	+NT		0 100				AD 2000 W4/12	VdTÜV 511/2*

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Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Manufacturer		Page No.. 9
Materials-term Materials-No.		Nationality NL		Date 04.04.18
Material Specification		Work		Rev.: 0 of: 26
Cur		Article Type of Product	Dimensions	Weight max
		Delivery Cond.	Thick-ness mm	Technical Specifications
			from to	Requirements
			6a 6b 7a 7b	Technical Regulations
1	2	3	4	5
			8a 8b	10



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				Thick-ness mm	Ø mm			
P275NH/1.0487	EN 10028-3 EN 10273	+N	Flanges, fittings and special parts machined acc. to client	0	250	1	AD 2000 W1 AD 2000 W13	VdTÜV 352/1*
P275NL1/1.0488	EN 10028-3 EN 10216-3	+N		0	150	8	AD 2000 W1 AD 2000 W12	VdTÜV 352/1-2*
P275NL1/1.0488	EN 10217-3	+N		0	250	1	AD 2000 W12	
P275NL2/1.1104	EN 10028-3 EN 10216-3 EN 10217-3	+N		0	100	8	AD 2000 W1 AD 2000 W12 AD 2000 W13	VdTÜV 352/1-2*
P355NL1/1.0566	EN 10028-3 EN 10216-3 EN 10217-3	+N		0	40		AD 2000 W4/12 AD 2000 W4/13	VdTÜV 354/1-3*
P355NL2/1.1106	EN 10028-3 EN 10216-3 EN 10217-3	+N		0	250		AD 2000 W1/13 AD 2000 W4/12 AD 2000 W4/12	VdTÜV 354/1-2*

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Company Name: NRG Special products B.V. Jan van der Heijdenstraat 13 Location: 3261 LE Oud-Beijerland / Netherland	Manufacturer		Nationality	Date	Page No..					
			NL	04.04.18	10					
			Rev.: 0	of: 26						
Cur	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions	Weight max	Technical Specifications	Requirements	Technical Regulations	Remarks
1	2	3	4	5	Thick-ness mm from to 6a 6b	Up to 7a 7b	Ø mm	1=t / 2=kg ↓ res ult	9	10

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Materials	Material Specification	Delivery Cond.	Article Type of Product	Dimensions	Weight max	Technical Specifications	Requirements	Technical Regulations	Remarks
P275NL1/1.0488	EN 10217-3	+N	Fittings and special parts acc. client drawings machined	0 40	1	AD 2000 W12		VdTÜV 352/1-2*	
P275NL2/1.1104	EN 10028-3 EN 10216-3 EN 10217-3	+N		0 250 0 100 0 40	8	AD 2000 W1 AD 2000 W12 AD 2000 W12		VdTÜV 352/1-2*	
P355NL1/1.0566	EN 10028-3 EN 10216-3 EN 10217-3	+N		0 250 0 100 0 40		AD 2000 W1/13 AD 2000 W4/12 AD 2000 W4/12		VdTÜV 354/1-3*	
P355NL2/1.1106	EN 10028-3 EN 10216-3 EN 10217-3	+N		0 250 0 100 0 40		AD 2000 W1/13 AD 2000 W4/12 AD 2000 W4/12		VdTÜV 354/1-2*	

Remarks

+AT	= solution annealed	+NT	= normalized and tempered
+AR	= as rolled	+QT	= quenched and tempered
+M	= thermo mechanical treated	+S	= soft annealed
+N	= normalized or normalizing formed	+SR	= stress relieved
+I	= Isothermal	+A	= annealed

a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary
* The manufacturer of material must be listed in the VdTÜV-Werkstoffblatt

Scope according to	<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011(System 2+)
Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Manufacturer		Page No.. 11
Materials-term Materials-No.		Material Specification	Delivery Cond.	Date 04.04.18
Cur				Rev.: 0 of: 26
1	2	3	4	9
Nationality NL		Work	Article Type of Product 5	Technical Specifications Requirements Technical Regulations
Dimensions Thick-ness mm from to		Weight max 1=t / 2=kg ↓ res ult	Remarks  	
6a	6b	7a	7b	8a
8b				10

2. Materials according to the AD 2000-Code

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions Thick-ness mm from to	Weight max 1=t / 2=kg ↓ res ult	Technical Specifications Requirements Technical Regulations	Remarks
6a	6b	7a	7b	8a	8b	9	10
P420QH/1.8936	EN 10222-4	+QT	Fittings and special parts	70 400	1 8	AD 2000 W9/12/13	VdTÜV 356/3*
P460NL/1.8915	EN 10028-3 EN 10216-3 EN 10217-3	+N	acc. client drawings machined	0 100 0 100 0 40		AD 2000 W1/12/13 AD 2000 W4/12 AD 2000 W4/12/	VdTÜV 357/1-3*
P460NL/1.8918	EN 10028-3 EN 10216-3 EN 10217-3	+N		0 100 0 100 0 40		AD 2000 W1/12 AD 2000 W4/12 AD 2000 W4/12	VdTÜV 357/1-2*
X1CrNi25-21/1.4335	EN 10028-7 EN 10216-5	+AT		0 75 0 60		AD 2000 W2 AD 2000 W2	VdTÜV 468*
X2CrNiMoN17-13-5/1.4439	EN 10028-7 EN 10216-5 EN 10217-7 EN 10222-5 EN 10272	+AT		0 75 0 60 0 60 0 160 0 250		AD 2000 W2 AD 2000 W2 AD 2000 W2 AD 2000 W2 AD 2000 W2	VdTÜV405*

Remarks
 +AT = solution annealed
 +AR = as rolled
 +M = thermo mechanical treated
 +N = normalized or normalizing formed
 +I = isothermal
 +NT = normalized and tempered
 +QT = quenched and tempered
 +S = soft annealed
 +SR = stress relieved
 +A = annealed
 a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary
 * The manufacturer of material must be listed in the VdTÜV-Werkstoffblatt

Scope according to		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011 (System 2+)
Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Manufacturer		Nationality	Page No..
		Work		Date	TÜV Rheinland Industrie Service GmbH
		Material Specification		Rev.: 0 of: 26	
Cur	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions
					Thick-ness mm
					from to
					from to
					Ø
					mm
					Up to
					7a
					7b
					8a
					8b
					9
					10
					Remarks
					Technical Specifications
					Requirements
					Technical Regulations



2. Materials according to the AD 2000-Code

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Materials	Material Specification	Delivery Cond.	Article Type of Product	Dimensions		Weight max	Technical Specifications	Remarks
				Thick-ness mm	Ø mm			
				from to	from to	1=t / 2=kg		
				6a	7a	8a		
				6b	7b	8b		
X1CrNiMoN25-22-2/1.4466	EN 10028-7 EN 10216-5	+AT	Fittings and special parts acc. client drawings machined	0	75	1	AD 2000 W2	Vd TÜV 415*
X1NiCrMoCuN25-20-7/1.4529	EN 10028-7 EN 10216-5 EN 10222-5 EN 10272	+AT		0	60	8	AD 2000 W2	Vd TÜV 502*
X1NiCrMoCuN25-20-5/1.4539	EN 10028-7 EN 10216-5 EN 10217-7 EN 10222-5 EN 10272	+AT		0	75		AD 2000 W2	Vd TÜV 421*
X1NiCrMoCu31-27-4/1.4563	EN 10028-7 EN 10216-5 EN 10217-7 EN 10272	+AT		0	60		AD 2000 W2	Vd TÜV 483*

Remarks

+AT = solution annealed	+NT = normalized and tempered	a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary
+AR = as rolled	+QT = quenched and tempered	* The manufacturer of material must be listed in the Vd TÜV-Werkstoffblatt
+M = thermo mechanical treated	+S = soft annealed	
+N = normalized or normalizing formed	+SR = stress relieved	

Scope according to	<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011 (System 2+)
Company Name:	Manufacturer			
Location:	Work			
Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions
1	2	3	4	5
2	3	4	5	6a
3	4	5	6b	7a
4	5	6	7b	8a
5	6	7	8b	9
6	7	8	9	10

2. Materials according to the AD 2000-Code

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions	Weight max	Technical Specifications	Remarks
1	2	3	4	5	6a	7a	8a
2	3	4	5	6b	7a	7b	8b
3	4	5	6	7	8	9	10
NiCu30Fe/2.4360/plate		+S	Fittings and special parts	0 80	1	AD 2000 W2	Vd TÜV 263*
NiCu30Fe/2.4360/sml. pipe		+S	acc. client drawings machined	0 25 0 220	8	AD 2000 W2	Vd TÜV 263*
NiCu30Fe/2.4360/forging		+S		0 150		AD 2000 W2	Vd TÜV 263*
NiCu30Fe/2.4360/bar		+S		--- 0 200		AD 2000 W2	Vd TÜV 263*
NiCr15Fe/2.4816/plate		+S		0 30		AD 2000 W2	Vd TÜV 305*
NiCr15Fe/2.4816/sml. pipe		+S		0 25 0 220		AD 2000 W2	Vd TÜV 305*
NiCr15Fe/2.4816/forging		+S		0 200 0 300		AD 2000 W2	Vd TÜV 305*
NiCr15Fe/2.4816/bar		+S		0 200 0 300		AD 2000 W2	Vd TÜV 305*
NiCr21Mo14W/2.4602/plate		+AT		0 51		AD 2000 W2	Vd TÜV 479*
NiCr21Mo14W/2.4602/smls. pipe		+AT		0 6 0 115		AD 2000 W2	Vd TÜV 479*
NiCr21Mo14W/2.4602/forging		+AT		0 110 0 375		AD 2000 W2	Vd TÜV 479*
NiCr21Mo14W/2.4602/bar		+AT		0 250 0 250		AD 2000 W2	Vd TÜV 479*
NiMo23Mo16Al/2.4605/plate		+AT		0 60		AD 2000 W2	Vd TÜV 505*
NiMo23Mo16Al/2.4605/bar		+AT		0 160 0 300		AD 2000 W2	Vd TÜV 505*
NiMo23Mo16Al/2.4605/forging		+AT		0 160 0 300		AD 2000 W2	Vd TÜV 505*
NiMo16Cr15W/2.4819/plate		+AT		0 50		AD 2000 W2	Vd TÜV 400*

Remarks
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 +M = thermo mechanical treated
 +N = normalized or normalizing formed
 +NT = normalized and tempered
 +QT = quenched and tempered
 +S = soft annealed
 +SR = stress relieved
 a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary
 * The manufacturer of material must be listed in the Vd TÜV-Werkstoffblatt

Scope according to	<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011(System 2+)				
Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Manufacturer						
Cur	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions Thick-ness mm from Up to from to	Weight max 1=t / 2=kg ↓ res ult	Technical Specifications Requirements Technical Regulations	Remarks
1	2							

2. Materials according to the AD 2000-Code

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

Material	Material Specification	Delivery Cond.	Article Type of Product	Dimensions	Weight max	Technical Specifications	Remarks
NiMo16Cr15W/2.4819/forging		+AT	Fittings and special parts	0 90	8	AD 2000 W2	VdTÜV 400*
NiMo16Cr15W/2.4819bar		+AT	acc. client drawings machined	0 250 0 250	1	AD 2000 W2	VdTÜV 400*
NiMo16Cr16Ti/2.4610/plate		+AT		0 6 0 115		AD 2000 W2	VdTÜV 400*
NiMo16Cr16Ti/2.4610/smls. pipe		+AT		0 65		AD 2000 W2	VdTÜV 424*
NiMo16Cr16Ti/2.4610/forging		+AT		0 5 0 115		AD 2000 W2	VdTÜV 424*
NiMo16Cr16Ti/2.4610/bar		+AT		0 180 0 160		AD 2000 W2	VdTÜV 424*
NiMo28/2.4617/plate		+AT		0 250 0 250		AD 2000 W2	VdTÜV 424*
NiMo28/2.4617/bar + forg.		+AT		0 65		AD 2000 W2	VdTÜV 436*
NiMo29Cr/2.4600/plate		+AT		0 90 0 90		AD 2000 W2	VdTÜV 436*
NiMo29Cr/2.4600/bar + forg.		+AT		0 65		AD 2000 W2	VdTÜV 436*
NiCr22Mo9Nb/2.4856/plate		+AT		0 220 0 220		AD 2000 W2	VdTÜV 512/517*
NiCr22Mo9Nb/2.4856/bar + forg.		+AT		0 50		AD 2000 W2	VdTÜV 512/517*
NiCr22Mo9Nb/2.4856/smls. pipe		+AT		0 200 0 300		AD 2000 W2	VdTÜV 499*
NiCr21Mo/2.4858/smls. pipe		+AT		0 6,5 0 60		AD 2000 W2	VdTÜV 499*
NiCr21Mo/2.4858/plate		+AT		0 70		AD 2000 W2	VdTÜV 499*
NiCr21Mo/2.4858/smls. pipe		+AT		0 8 0 115		AD 2000 W2	VdTÜV 432*

Remarks
 +AT = solution annealed
 +AR = as rolled
 +M = thermo mechanical treated
 +N = normalized or normalizing formed
 +NT = normalized and tempered
 +QT = quenched and tempered
 +S = soft annealed
 +SR = stress relieved
 a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary
 * The manufacturer of material must be listed in the VdTÜV-Werkstoffblatt

Scope according to	<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011 (System 2+)
Manufacturer		Work		
Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		NL	04.04.18	16
			Rev.: 0	of: 26
Cur	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product
1	2	3	4	5
2. Materials according to the AD 2000-Code				

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

Materials	Material Specification	Delivery Cond.	Article Type of Product	Dimensions			Weight max	Technical Specifications	Remarks	
				Thick-ness mm	from to	Ø mm				
				6a	6b	7a	7b	8a	8b	
NiCr21Mo/2.4858/forging		+AT	Fittings and special parts acc. client drawings machined	0	240	0	350		AD 2000 W2	VdTÜV 432*
NiCr21Mo/2.4858/bar		+AT		0	240	0	350		AD 2000 W2	VdTÜV 432*
X10NiCrAlTi32-21/1.4876/plate		+AT		0	80				AD 2000 W2	VdTÜV 412*
X10NiCrAlTi32-21/1.4876/smls. pipe		+AT		0	40	0	558		AD 2000 W2	VdTÜV 412*
X10NiCrAlTi32-21/1.4876/bar		+AT				0	160		AD 2000 W2	VdTÜV 412*
X10NiCrAlTi32-21/1.4876/forg.		+AT		0	330				AD 2000 W2	VdTÜV 412*
NiCr23Co12Mo/2.4663/plate		+AT		0	80				AD 2000 W2	VdTÜV 485*
NiCr23Co12Mo/2.4663/smls. pipe		+AT		0	80	0	800		AD 2000 W2	VdTÜV 485*
NiCr23Co12Mo/2.4663/bar		+AT		0	200	0	300		AD 2000 W2	VdTÜV 485*
NiCr23Co12Mo/2.4663/forg.		+AT		0	240	0	360		AD 2000 W2	VdTÜV 485*
Ti 2/3.7035/plate		+S		0	100				AD 2000 W2	VdTÜV 230*
Ti 2/3.7035/pipe		+S		0	20	0	159		AD 2000 W2	VdTÜV 230*

Remarks

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 +AR = as rolled
 +M = thermo mechanical treated
 +N = normalized or normalizing formed

+NT = normalized and tempered
 +QT = quenched and tempered
 +S = soft annealed
 +SR = stress relieved

a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary
 * The manufacturer of material must be listed in the VdTÜV-Werkstoffblatt

Scope according to	<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011(System 2+)
Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Manufacturer		
Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions
2	3	4	5	Thick-ness mm from to 6a 6b 7a 7b
1				Weight max 1=t / 2=kg ↓ res ult 8a 8b
Nationality		Date	Page No..	Remarks
NL		04.04.18	17	TÜV Rheinland Industrie Service GmbH
Rev.: 0		of: 26		



3. Materials according to international standards (e. g. ASTM, ASME, IBR etc.)

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

Materials	ASTM/ASME	+N	Fittings and special parts acc. client drawings machined	10	1600	1	8	a
A/SA 105	ASTM/ASME A/SA 105	+N						a
A/SA 335 P1	ASTM/ASME A/SA 335	+I,+NT						a
A/SA 335 P2		+I,+NT	2	60		1	8	a
A/SA 335 P5//cb		+I,+NT						a
A/SA 335 P9		+I,+NT						a
A/SA 335 P11		+I,+NT						a
A/SA 335 P12		+I,+NT						a
A/SA 335 P15		+I,+NT						a
A/SA 335 P21		+I,+NT						a

Results	+AT = solution annealed +AR = as rolled +M = thermo mechanical treated +N = normalized or normalizing formed +I = Isothermal	+NT = normalized and tempered +QT = quenched and tempered +S = soft annealed +SR = stress relieved +A = annealed	a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary
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Scope according to	<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011 (System 2+)
Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Manufacturer		
Materials-term Materials-No.		Material Specification	Delivery Cond.	Article Type of Product
1	2	3	4	5
Dimensions		Weight max	Technical Specifications	
Thick-ness mm		1=t / 2=kg	Requirements	
from to		↓ res ult	Technical Regulations	
6a 6b 7a 7b		8a 8b	9	
10		10		



3. Materials according to international standards (e.g. ASTM, ASME, IBR etc.)

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Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions	Weight max	Technical Specifications	Remarks
1	2	3	4	5	6a 6b 7a 7b	8a 8b	9
A/SA 182 P10 A/SA 335 P22 A/SA 335 P23 A/SA 335 P24 A/SA 335 P36 A/SA 335 P91 A/SA 335 P92 A/SA 335 P122 A/SA 335 911	ASTM/ASME A/SA 335	+AT +I, +NT +NT +NT +NT +NT, +QT +NT +NT +NT	Fittings and special parts acc. client drawings machined	60	1	8	a a a a a a a a a
A/SA 182 F1 A/SA 182 F2 A/SA 182 F5/a A/SA 182 9 A/SA 182 F91 A/SA 182 F92	ASTM/ASME A/SA 182	+A, +NT +A, +NT +A, +NT +A, +NT +NT, +QT +NT		10 1600	1	8	a a a a a a a

Results	+AT = solution annealed +AR = as rolled +M = thermo mechanical treated +N = normalized or normalizing formed +I = Isothermal	+NT = normalized and tempered +QT = quenched and tempered +S = soft annealed +SR = stress relieved +A = annealed	a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary
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Scope according to	<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011 (System 2+)				
Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Nationality: NL		Page No.: 19				
Manufacturer		Date: 04.04.18	of: 26					
Cur	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions	Weight max	Technical Specifications	Remarks
1	2	3	4	5	6a 6b 7a 7b	8a 8b	9	10



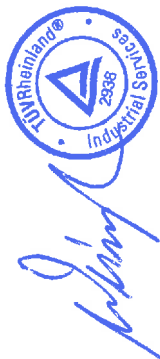
3. Materials according to international standards (e.g. ASTM, ASME, IBR etc.)

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

Materials	ASTM/ASME	+NT	Fittings and special parts acc. client drawings machined	10	1600	1	8	a
A/SA 182 F93 A/SA 182 F122 A/SA 182 F911 A/SA 182 F11, Cl. 1, 2, 3 A/SA 182 F12, Cl. 1, 2 A/SA 182 F21, F3V, F3VCB A/SA 182 F22, Cl. 1, 3 A/SA 182 F73 A/SA 182 F22V A/SA 182 F23 A/SA 182 F24 A/SA 182 FR A/SA 182 F36, Cl. 1, 2 A/SA 182 F6a, Cl. 1, 2, 3, 4 A/SA 182 F6b	ASTM/ASME A/SA 182	+NT +NT +NT +A,+NT +A,+NT +A,+NT +A,+NT +AT +NT,+QT +NT +NT +A,+NT +NT,+QT +A,+NT +A,+NT +A,+NT						a a a a a a a a a a a a a a a a a

Results	+AT = solution annealed +AR = as rolled +M = thermo mechanical treated +N = normalized or normalizing formed +I = isothermal	+NT = normalized and tempered +QT = quenched and tempered +S = soft annealed +SR = stress relieved +A = annealed	a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary
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Scope according to		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011 (System 2+)
Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Manufacturer		Nationality	Date
				NL	04.04.18
				Rev.: 0	of: 26
				Page No..	20
				TÜV Rheinland Industrie Service GmbH	
Cur	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions
					Thick-ness mm
					Ø
					mm
					from Up to
					6a 6b 7a 7b
					Weight max
					1=t / 2=kg
					↓ res ult
					8a 8b
1	2	3	4	5	9
					10





3. Materials according to international standards (e.g. ASTM, ASME, IBR etc.)

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

	ASTM/ASME	+NT	Fittings and special parts acc. client drawings machined	10	1600	1	8	
A/SA 182 F6NM	A/SA 182 F6NM	+NT						a
A/SA 182 FXM-27 Cb	A/SA 182 FXM-27 Cb	+A						a
A/SA 182 F429	A/SA 182 F429	+A						a
A/SA 182 F430	A/SA 182 F430	+A						a
A/SA 182 F304/H/L/N/LN	A/SA 182 F304/H/L/N/LN	+AT						a
A/SA 182 309H	A/SA 182 309H	+AT						a
A/SA 182 F310/H/MoLN	A/SA 182 F310/H/MoLN	+AT						a
A/SA 182 F316/H/L/N/LN/Ti	A/SA 182 F316/H/L/N/LN/Ti	+AT						a
A/SA 182 F317L	A/SA 182 F317L	+AT						a
A/SA 182 F72	A/SA 182 F72	+AT						a
A/SA 182 F347/H/LN	A/SA 182 F347/H/LN	+AT						a
A/SA 182 F348/H	A/SA 182 F348/H	+AT						a
A/SA 182 F321/H	A/SA 182 F321/H	+AT						a
A/SA 182 FXM-11	A/SA 182 FXM-11	+AT						a

Results	+AT = solution annealed	+NT = normalized and tempered	a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary
	+AR = as rolled	+QT = quenched and tempered	
	+M = thermo mechanical treated	+S = soft annealed	
	+N = normalized or normalizing formed	+SR = stress relieved	
	+I = isothermal	+A = annealed	

Scope according to	<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011(System 2+)
Manufacturer				
Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland				
Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions
2	3	4	5	Thick-ness mm from Up to 6a 6b 7a 7b Ø mm Up to 7b
1				Weight max 1=t / 2=kg ↓ res ult 8a 8b
				Technical Specifications Requirements Technical Regulations
				Remarks  
				9 10

3. Materials according to international standards (e.g. ASTM, ASME, IBR etc.)

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions	Weight max	Technical Specifications	Remarks
	A/SA 182 F59 A/SA 182 FXM-19 A/SA 182 F20 A/SA 182 F44 A/SA 182 F45 A/SA 182 F46 A/SA 182 F47 A/SA 182 F 48 A/SA 182 F49 A/SA 182 F56 A/SA 182 F58 A/SA 182 F62 A/SA 182 F63	ASTM/ASME A/SA 182	+AT +AT +AT +AT +AT +AT +AT +AT +AT +AT +AT +AT +AT	5	10 1600	1 8	9	a a a a a a a a a a a a a

Results	+AT = solution annealed +AR = as rolled +M = thermo mechanical treated +N = normalized or normalizing formed +I = Isothermal	+NT = normalized and tempered +QT = quenched and tempered +S = soft annealed +SR = stress relieved +A = annealed	a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary
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Scope according to	<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011 (System 2+)
Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Manufacturer		
Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions
2	3	4	5	Thick-ness mm from Up to 6a 6b 7a 7b Ø mm Up to 7b
1	2	3	4	5
Nationality		Date	Page No.	Remarks
NL		04.04.18	22	TÜV Rheinland Industrie Service GmbH
Weight max		Technical Specifications	Rev.: 0 of: 26	
1=t / 2=kg		Requirements		
↓ res ult		Technical Regulations		
8a 8b				
9				10



3. Materials according to international standards (e. g. ASTM, ASME, IBR etc.)

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Cur	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions	Weight max	Technical Specifications	Remarks
	A/SA 182 F64 A/SA 182 F904L A/SA 182 F70 A/SA 182 F50 A/SA 182 F51 A/SA 182 F52 A/SA 182 F53 A/SA 182 F54 A/SA 182 F57 A/SA 182 F60 A/SA 182 F61 A/SA 182 F65 A/SA 182 F66 A/SA 182 F67 A/SA 182 F68	ASTM/ASME A/SA 182	+AT +AT +AT +AT +AT +AT +AT +AT +AT +AT +AT +AT +AT +AT +AT	Fittings and special parts acc. client drawings machined	10 1600	1 8	Technical Regulations	a a a a a a a a a a a a a a a

Results	+AT = solution annealed +AR = as rolled +M = thermo mechanical treated +N = normalized or normalizing formed +I = Isothermal	+NT = normalized and tempered +QT = quenched and tempered +S = soft annealed +SR = stress relieved +A = annealed	a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary
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Scope according to	<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011(System 2+)				
Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Manufacturer		Nationality: NL Date: 04.04.18 Page No.: 23				
Cur	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions	Weight max	Technical Specifications	Remarks
1	2	3	4	5	6a 6b 7a 7b	8a 8b	9	10



3. Materials according to international standards (e.g. ASTM, ASME, IBR etc.)

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Materials	ASTM/ASME	Delivery Cond.	Article Type of Product	Dimensions	Weight max	Technical Specifications	Remarks
A/SA 182 F69 A/SA 182 F71	ASTM/ASME A/SA 182	+AT +AT	Fittings and special parts acc. client drawings machined	10 1600	1 8	Technical Requirements	a a a a a a a a a a a a
A/SA 350 LF1 A/SA 350 LF2 A/SA 350 LF3 A/SA 350 LF54 A/SA 350 LF6 A/SA 350 LF9 A/SA 350 LF787 A/SA 350 LF	ASTM/ASME A/SA 350	+N, +NT, +QT					
UNS N 06035 UNS N 10276 UNS N 06022 UNS N 06455 UNS N 06059	ASTM/ASME B/SA 574	+AT +AT +AT +AT +AT					

Results	+AT = solution annealed +AR = as rolled +M = thermo mechanical treated +N = normalized or normalizing formed +I = isothermal	+NT = normalized and tempered +QT = quenched and tempered +S = soft annealed +SR = stress relieved +A = annealed	a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary
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Scope according to	<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011 (System 2+)
Manufacturer		Work	Nationality	Page No..
Company Name: NRG Special products B.V. Jan van der Heijdersstraat 13 Location: 3261 LE Oud-Beijerland / Netherland			NL	24
			Date	of: 26
			04.04.18	TÜV Rheinland Industrie Service GmbH
Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions
				Thick-ness mm
				from Up to
				6a 6b 7a 7b
				Ø mm
				Weight max
				1=t / 2=kg
				↓ res ult
				8a 8b
				9
				10





3. Materials according to international standards (e.g. ASTM, ASME, IBR etc.)

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Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions	Weight max	Technical Specifications Requirements	Remarks
UNS N 06058	ASTM/ASME B/SB 574	+AT	Fittings and special parts acc. client drawings machined	10	1		a
UNS N 06200		+AT		1600	8		a
UNS N 06210		+AT					a
UNS N 06686		+AT					a
UNS N 08367	ASTM/ASME B/SB 564	+AT					a
UNS N 20033		+AT					a
UNS N 06035		+AT					a
UNS N 06058		+AT					a
UNS N 06059		+AT					a
UNS N 06200		+AT					a
UNS N 06686		+AT					a
UNS N 08031		+AT					a
UNS N 10276		+AT					a
UNS N 06022		+AT					a
UNS N 10362		+AT					a

Results	+AT = solution annealed	+NT = normalized and tempered	a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary
	+AR = as rolled	+QT = quenched and tempered	
	+M = thermo mechanical treated	+S = soft annealed	
	+N = normalized or normalizing formed	+SR = stress relieved	
	+I = Isothermal	+A = annealed	

Scope according to		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011 (System 2+)			
Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Manufacturer		Nationality	Date			
				NL	04.04.18			
				Rev.: 0	Page No.: 25			
				of: 26	TÜV Rheinland Industrie Service GmbH			
Cur	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions	Weight max	Technical Specifications	Remarks
1	2	3	4	5	Thick-ness mm from Up to 6a 6b 7a 7b	1= t / 2= kg ↓ res ult 8a 8b	Technical Requirements	
							Technical Regulations	 
							9	10

3. Materials according to international standards (e. g. ASTM, ASME, IBR etc.)

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

Materials	ASTM/ASME	Delivery Cond.	Article Type of Product	Dimensions	Weight max	Technical Specifications	Remarks
UNS N 06210	+AT		Fittings and special parts acc. client drawings machined	10	1	8	a
UNS N 02200	+A						a
UNS N 12160	+AT						a
UNS N 06617	+AT						a
UNS N 06600	+AT						a
UNS N 06603	+AT						a
UNS N 06690	+AT						a
UNS N 06025	+AT						a
UNS N 06045	+AT						a
UNS N 06625	+A,+AT						a
UNS N 06219	+AT						a
UNS N 06110	+AT						a
UNS N 06230	+AT						a
UNS N 04400	+A						a
UNS N 08120	+AT						a

Results	Legend
+AT = solution annealed	+NT = normalized and tempered
+AR = as rolled	+QT = quenched and tempered
+M = thermo mechanical treated	+S = soft annealed
+N = normalized or normalizing formed	+SR = stress relieved
+I = Isothermal	+A = annealed
	a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary



Scope according to		<input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3	<input type="checkbox"/> EN 764-4	<input checked="" type="checkbox"/> AD 2000-Merkblatt W0	<input type="checkbox"/> FPC, Regulation (EU) No. 305/2011(System 2+)
Company Name: NRG Special products B.V. Jan van der Heijderstraat 13 Location: 3261 LE Oud-Beijerland / Netherland		Manufacturer		Nationality	Date
				NL	04.04.18
		Work		Page No..	26
				Rev.: 0	of : 26
Cur	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions
					Thick-ness mm
					Ø
					mm
					from to
					6a 6b 7a 7b
					8a 8b
1	2	3	4	5	9
3. Materials according to international standards (e. g. ASTM, ASME, IBR etc.)					

The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions	Weight max	Technical Specifications	Remarks
UNS N 08800	ASTM/ASME	+AT	Fittings and special parts acc. client drawings machined	10	1	8	a
UNS N 08810	B/SB 564	+AT		1600			a
UNS N 08811		+AT					a
UNS N 08825		+AT					a
UNS N 06674		+AT					a
UNS N 10665		+AT					a
UNS N 10675		+AT					a
UNS N 10629		+AT					a
UNS N 10242		+AT					a
UNS N 10624		+AT					a

Results

+AT = solution annealed
 +AR = as rolled
 +M = thermo mechanical treated
 +N = normalized or normalizing formed
 +I = isothermal

+NT = normalized and tempered
 +QT = quenched and tempered
 +S = soft annealed
 +SR = stress relieved
 +A = annealed

a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary