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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 | | Date | | Page No.. | | |
| Company Name: Non Ferro Gieterij "Oldenzaal"bv Visschedijkweg 17 Location: NL - 7575 PB Oldenzaal | | | | Oldenzaal | | NL | | 26.03.2019 | | 1 | | |
| | | | | | | | | Rev.: 0 | | of : 3 | | |
| Cur - | Materials-term Materials-No. | Material Specification | Delivery Cond. | Article Type of Product | Dimensions | | | | Weight max 1=t / 2=kg ↓ res ult | Technical Specifications Requirements Technical Regulations | Remarks | |
| | | | | | Thick- ness mm | | Ø mm | | | | | |
| | | | | | from | Up to | from | Up to | | | | |
| 1 | 2 | 3 | 4 | 5 | 6a | 6b | 7a | 7b | 8a | 8b | 9 | 10 |

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

The use of the materials according to Directive 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.

| | | | | | | | | | | | | |
|----|--|----------|----|---------------------------|--|--|--|--|---|-----|----------|--|
| 01 | Austenitic Steel castings 1.4308, 1.4309, 1.4408, 1.4409, 1.4552, 1.4581 | EN 10213 | AT | Castings (Sandcasting) | | | | | 1 | 1,5 | EN 13445 | |
| 02 | Duplex-Steel castings 1.4517, 1.4469, 1.4470, 1.4417 | EN 10213 | AT | Castings (Sandcasting) | | | | | 1 | 1,5 | EN 13445 | |

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|----------------|---|---|--|
| 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 |
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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 | | Date | | Page No.. | | |
| Company Name: Non Ferro Gieterij "Oldenzaal"bv Visschedijkweg 17 Location: NL - 7575 PB Oldenzaal | | | | Oldenzaal | | NL | | 26.03.2019 | | 2 | | |
| | | | | | | | | Rev.: 0 | | of : 3 | | |
| Cur - | Materials-term Materials-No. | Material Specification | Delivery Cond. | Article Type of Product | Dimensions | | | | Weight max 1=t / 2=kg ↓ res ult | Technical Specifications Requirements Technical Regulations | Remarks | |
| | | | | | Thick- ness mm | | Ø mm | | | | | |
| | | | | | from | Up to | from | Up to | | | | |
| 1 | 2 | 3 | 4 | 5 | 6a | 6b | 7a | 7b | 8a | 8b | 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.

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|----|--|----------|----|---------------------------|--|--|--|--|---|-----|-----------|--|
| 03 | Austenitic Steel castings 1.4308, 1.4408, 1.4552, 1.4581 | EN 10213 | AT | Castings (Sandcasting) | | | | | 1 | 1,5 | AD2000-W5 | |
|----|--|----------|----|---------------------------|--|--|--|--|---|-----|-----------|--|

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| 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 |
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|---|---------------------------------|---|----------------|-----------------------------------|---------------|--|------|---|---|---|---------|----|
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| Manufacturer | | | | Work | | Nationality | | Date | | | | |
| Company Name: Non Ferro Gieterij "Oldenzaal"bv Visschedijkweg 17 Location: NL - 7575 PB Oldenzaal | | | | Oldenzaal | | NL | | 26.03.2019 | | | | |
| | | | | | | | | Page No.: 3 | | | | |
| | | | | | | | | Rev.: 0 of : 3 | | | | |
| Cur - | Materials-term Materials-No. | Material Specification | Delivery Cond. | Article Type of Product | Dimensions | | | | Weight max 1=t / 2=kg ↓ res ult | Technical Specifications Requirements Technical Regulations | Remarks | |
| | | | | | Thick-ness mm | | Ø mm | | | | | |
| | | | | | from | Up to | from | Up to | | | | |
| 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.

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|----|--|--------------------------------|----|---------------------------|--|--|--|--|---|-----|--|--|
| 04 | Austenitic Steel castings CF3, CF8, CF3M, CF8M CF3MN, CK-3MCuN | ASTM A 351 | AT | Castings (Sandcasting) | | | | | 1 | 1,5 | | No. 04 to 07: Particular Material Appraisal (PMA) required acc. to Directive 2014/68/EU, Anhang I, 4.2 b: acc. to specification * Lloyd's Register of Shipping, ABS and GL |
| 05 | Duplex- Steel castings 1B/CD4MCuN, 4A/CD3MN 6A/CD3MWCuN | ASTM A 995 | AT | Castings (Sandcasting) | | | | | 1 | 1,5 | | |
| 06 | Copper-Aluminium Alloys | EN 1982 DIN 1705 | b | Castings (Sandcasting) | | | | | 1 | 1,5 | | |
| 07 | Manganese-Copper Alloys | ASTM B 148 Kundennorm*, CU4 | b | Castings (Sandcasting) | | | | | 1 | 1,5 | | |

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| Results | +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 |
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