



Aperam Stainless Services & Solutions Germany GmbH

Landstraße 27-29
42781 Haan

Tel: 02104 / 2829-700

**TEST REPORT
RELEVÉ DE CONTRÔLE
WERKSZEUGNIS**

According to / Selon / Gemäß
EN 10204

BL: 0496697 - 1

Date: 26/01/2024

| | | | |
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| Manufact. / Product. /Herstell. APERAM STAINLESS S.ETS.INTERNATIONAL | | Item / Article / Produkt 96-316007 | |
| Supplier Lot / Lot Fourn. / Band Nr 34657240 | | SHEETS WN 4301 2R ONE SIDE FOIL NOVACEL 4228 1,50 X 1500,0 X 3000,0 MARK OF G | |
| Heat N° / N° de coulée / Schmelz Nr 830390 | | Customer / Client / Kunde OVAKO METALS OY AB | |
| Steel Designation / Désignation Acier / Stahlbezeichnung EN 10028-7 WNR 1.4301 EN 10088-2 WNR 1.4301 ASTM A 240(M) TYPE 304 ASME SA 240 TYPE 304 | | Order / Commande / Order 312025900 - 01 | |
| | | Reference / Référence / Referenz 027412 | |

AD 2000 W2 -- AD 2000 W10 -- PED 2014/68/EU




| | |
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| Mill Certificate / N° de Certificats / Prüfzeugnis Nr 24K0002310 24K0002310-CE | |
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| Chemical Analysis / Analyse Chimique / Chemische Zusammensetzung | | | | | | | | | | | | | |
|---|-------|-------|-------|-------|--------|----|----|------|-------|-------|----|----|--|
| | C | Si | Mn | Ni | Cr | Mo | Ti | N | S | P | Cu | Al | |
| Cast Analysis Analyse Coulée Analyse | 0,024 | 0,411 | 1,429 | 8,014 | 18,021 | | | 0,07 | 0,002 | 0,038 | | | |



| Mechanical Properties / Propriétés Mécaniques / Mechanische Werte EN ISO 6892-1 B | | | | | | | |
|--|--------|---|----|--|-----|------------------------------|--|
| Yield strength Limite D'élasticité Dehngrenze | | Tensile strength Résistance à la traction Zugfestigkeit | | Elongation after fracture (A) Allongement après rupture Bruchdehnung | | Hardness Dureté Haerte | |
| MPA | | MPA | | % | | % | |
| Rp 0.2 % | Rp 1 % | Rm | A5 | 50 mm | HRB | DDQ | |
| 312 | 343 | 642 | | 55 | | 48 | |

| Material Identification / Identification Matériel / Materialidentifikation | | | | | | | | | | |
|---|----------------------------|--|----------------------------|----------------------------|--|----------------------------|----------------------------|--|----------------------------|----------------------------|
| Lot Nr N° Lot Los Nr | Weight Poids Gewicht | | Lot Nr N° Lot Los Nr | Weight Poids Gewicht | | Lot Nr N° Lot Los Nr | Weight Poids Gewicht | | Lot Nr N° Lot Los Nr | Weight Poids Gewicht |
| | Kg | | | Kg | | | Kg | | | Kg |
| 7067476 | 1028 | | | | | | | | | |
| 7067477 | 1019 | | | | | | | | | |

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|--|
| Number of lots / Nombre de lots / Bundanzahl : 2 |
| Total weight / Poids Total / Gesamt Gewicht [Kg] : 2047 |

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|--|--|--|--|--|--|--|--|--|--|--|--|---|--|---|--|---|--|---|--|-----------|--|-------------|--|-----|--|-----|--|-----|--|-----|--|-----|--|
|  | | MILL CERTIFICATE BS EN 10204/3.1 CERTIFICAT DE RECEPTION NF EN 10204/3.1 ABNAHMEPRUEFZEUGNIS DIN EN 10204/3.1 | | | | | | | | | | N-Nr-N 24K0002310-01 V01 | | | | | | | | | | | | | | | | | | | | | |
| | | Certified acc.PED 2014/68/EU Annex I § 4.3 by Certification Body 0036 of TUV SUD Industrie Service GmbH with cert.No.:314/2007/MUC.Renounced of counter signature agreed by TÜV SÜD (9/5/2007).Approved acc.AD 2000-Merkblatt W0/TRD 100 by TÜV SÜD Industrie Service GmbH.Confirmation letter from TÜVSÜD Industrie Service GmbH of 07/05/2010 about the uniformity of coils acc.AD2000 W2 §4.1.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Correspondentieadres: Aperam Genk Swinnenwijerweg 5, Poort Genk 7523 3600 Genk, Belgium Tel. +32 (0)89 30 21 11 | | Tech.Req.:AD 2000 W2 -- AD 2000 W10 -- EN 13445-2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Manufacturer's works order number N° de la commande usine productrice Werksauftragsnummer 80884317/01-08457/H2L/01 | | Surveyor's mark Cachet de l'expert Stempel des Werkssachverstaendigen  | | Purchaser and/or consignee Client et/ou destinataire Besteller und/oder Empfaenger APERAM SS&S HAAN Aperam Allee 1 42781 Haan DEUTSCHLAND | | | | Purchaser's order number N° de commande client Kundenbestellnummer 312905560 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Product - Produit - Erzeugnis COIL, COLD ROLLED, UNTRIMMED, FINISH BA COIL,LAMINE A FROID, BORDS NON REFENDUS, FINI BA COIL, KALTGEWALZT, BLANKGEGLUEHT, UNBESAEUMT | | | | Any supplementary requirements Prescriptions supplémentaires - Zusätzliche Anforderungen | | | | Customer article number N.article client Artikelnummer des Kunden ART335885 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Steel designation Désignation de l'acier Stahlbezeichnung EN 10028-7-2016 1.4307 / 1.4301 EN 10088-2-2014 1.4307 / 1.4301 ASTM A 240-2023 TYPE 304L / 304 ASME SA 240-2023 TYPE 304L / 304 EN 10088-4-2009 1.4307 / 1.4301 | | Finish Présentation Ausfuehrung 2R 2R BA BA 2R | | Steelmaking process Mode d'elaboration de l'acier - Stahlherstellungverfahren Prod.proces: Electric arc furnace - VOD/AOD - Continuous casting Proc.fabric.: Four à arc - VOD/AOD - Coulée continue Fertigungsablauf: Elektro-Ofen - VOD/AOD - Stranggussanlage | | | | Product delivery condition Etat de livraison du produit - Lieferzustand Annealing Recuit Glühen 1050 °C Forced air-water/air forcé-eau Geblaese Luft-Wasser | | | | | | | | | | | | | | | | | | | | | | | | | |
| ASME-CODE SECT.2 PART A // NACE MR 0175 / ISO 15156-1 / ISO 15156-3 -- NACE MR 0103 / ISO 17945 // ASTM A480 / A480M -- ASME SA480 /SA480M // CORR. TEST: ASTM A262-E: OK // CORROSION INTERGRANULAIRE SELON ISO 3651/2:OK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Identification of the product Identification du produit - Identifizierung des Erzeugnisses MELTED IN BELGIUM, MADE IN BELGIUM | | Dimensions Dimensions - Abmessungen Thickness Epaisseur - Staerke 1.50 mm | | | | Width Largeur - Breite 1500.00 mm | | Length Longueur - Laenge | | Number of pieces Nb de pièces - Stueckzahl 1 | | Net weight Poids net - netto Gewicht 13730 KG | | | | | | | | | | | | | | | | | | | | | |
| CHEMICAL ANALYSIS - ANALYSE CHIMIQUE - CHEMISCHE ZUSAMMENSETZUNG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | C | | Si | | Mn | | Ni | | Cr | | Mo | | Ti | | N | | S | | P | | Co | | | | | | | | | | | |
| Required -Exigé % mini Anforderung. % maxi | | 0.030 | | 0.75 | | 2.00 | | 8.00 10.50 | | 18.00 19.50 | | | | | | 0.100 | | 0.015 | | 0.045 | | | | | | | | | | | | | |
| Cast Analysis Analyse coulee Analyse Schmelze | | 0.024 | | 0.41 | | 1.42 | | 8.01 | | 18.02 | | | | 0.070 | | 0.002 | | 0.038 | | 0.169 | | | | | | | | | | | | | |
| | | C71 | | C72 | | C73 | | C74 | | C75 | | C76 | | C77 | | C78 | | C79 | | C80 | | C81 | | C82 | | C83 | | C84 | | C85 | | C86 | |
| Positive material identification carried out : OK Tests de vérification de la conformité de la nuance fournie : OK Verwechslungspruefung wurde durchgefuehrt : OK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Location (1) | | MECHANICAL PROPERTIES - PROPRIETES MECANIQUES - MECHANISCHE WERTE EN ISO 6892-1 B / A-SA 370 | | | | | | | | | | Room temperature - Température ambiante - Raumtemperatur | | Test temperature (°C) : | | | | | | | | | | | | | | | | | | | |
| Direction (2) | | Yield or proof strength Limite d'élasticité Dehngrenze MPa | | | | Tensile Strength Résistance à la traction Zugfestigkeit MPa | | | | Elongation after fracture Allongement après rupt. Bruchdehnung % | | Hardness Dureté Haerte | | Yield or proof strength Limite d'élasticité Dehngrenze MPa | | Tensile str. Résist. MPa Zugfestigkeit | | Elongation % Allongement. Bruchdehnung | | | | | | | | | | | | | | | |
| | | Required Exigé Anforderung | | Rp0.2% | | Rp1% | | Rm | | 50mm | | 80mm | | HBW1 | | Rp0.2% | | Rp1% | | Rm | | 50mm | | | | | | | | | | | |
| | | mini maxi | | 230 | | 260 | | 540 700 | | 45 | | 45 | | 201 | | | | | | | | | | | | | | | | | | | |
| 1 T | | Obtained Obtenu Ergebnisse | | 312 | | 343 | | 642 | | 55 | | 53 | | 168 | | | | | | | | | | | | | | | | | | | |
| | | | | C11 | | C14 | | C12 | | C13 | | C15 | | C31 | | C16 | | C17 | | C18 | | C19 | | | | | | | | | | | |
| Impact strength test Essai de résilience Kerbschlagzaehigkeitstest | | Corrosion test Test de corrosion Korrosionstest | | | | E0.2(T)/R(T) % | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | C40 | | t(°c) | | C44 | | | | 48 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | C50 | | C51 | | C52 | | C53 | | C54 | | C55 | | C05 | | | | | | | | | | | |
| | | | | | | | | | | D51 | | Internal cleanliness: | | A: | | B: | | C: | | D: | | C57 | | | | | | | | | | | |
| Location of the sample (1) Emplacement de l'échantillon Lage des Probenabschnittes 1. Front - Début - Anfang 2. Back - Fin - Ende 3. Middle - Milieu - Mitte | | The delivery is in accordance with the order La fourniture est conforme aux exigences de la commande Die lieferung entspricht den Bestellbedingungen | | | | Packing list Avis d'expédition Lieferscheinnummer 2024025977-100052 | | | | Organisation inspection Organisme et/ou service contrôle Ueberwachungsabteilung Quality Department 23/1/2024 The inspector Le responsable Der Werkssachverstaendige  R. Vliegen | | | | | | | | | | | | | | | | | | | | | | | |
| Direction of the test pieces (2) Orientation des éprouvettes Probenrichtung T. Transverse - Travers - Quer L. Longitudinal - Long - Laengs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|  | | MILL CERTIFICATE BS EN 10204/3.1 CERTIFICAT DE RECEPTION NF EN 10204/3.1 ABNAHMEPRUEFZEUGNIS DIN EN 10204/3.1 | | | | | | | | | | N-Nr-N 24K0002310-CE V01 | | | | | | | | | | | | | | | | | | | | | |
| | | Factory Production Control certified by TUV SUD Industrie Service GmbH with certificate nr 0036-CPR-M-043-2011. In compliance with the Construction Product Regulation Nr 305/2011/EU. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Correspondentieadres: Aperam Genk Swinnenwijerweg 5, Poort Genk 7523 3600 Genk, Belgium Tel. +32 (0)89 30 21 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Manufacturer's works order number N° de la commande usine productrice Werksauftragsnummer 80884317/01-08457/H2L/01 | | Surveyor's mark Cachet de l'expert Stempel des Werkssachverstaendigen  | | Purchaser and/or consignee Client et/ou destinataire Besteller und/oder Empfaenger APERAM SS&S HAAN Aperam Allee 1 42781 Haan DEUTSCHLAND | | | | Purchaser's order number N° de commande client Kundenbestellnummer 312905560 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Product - Produit - Erzeugnis COIL, COLD ROLLED, UNTRIMMED, FINISH BA COIL,LAMINE A FROID, BORDS NON REFENDUS, FINI BA COIL, KALTGEWALZT, BLANKGEGLUEHT, UNBESAEUMT | | | | | | | | Customer article number N.article client Artikelnummer des Kunden ART335885 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Steel designation Désignation de l'acier Stahlbezeichnung EN 10088-4-2009 1.4307/1.4301 | | Finish Présentation Ausfuehrung 2R | | Steelmaking process Mode d'élaboration de l'acier - Stahlherstellungverfahren Prod.proces: Electric arc furnace - VOD/AOD - Continuous casting Proc.fabric.: Four à arc - VOD/AOD - Coulée continue Fertigungsablauf: Elektro-Ofen - VOD/AOD - Stranggussanlage | | | | Product delivery condition Etat de livraison du produit - Lieferzustand Annealing Recuit Glühen 1050 °C Forced air-water/air forcé-eau Gebläse Luft-Wasser | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Identification of the product Identification du produit - Identifizierung des Erzeugnisses MELTED IN BELGIUM, MADE IN BELGIUM | | Dimensions Dimensions - Abmessungen | | | | Number of pieces Nb de pièces - Stueckzahl 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Coil n. N.Bovine - Band Nr. 34657240 | | Heat n. N.Coulée - Schmelz Nr. 830390 | | Thickness Epaisseur - Staerke 1.50 mm | | Width Largeur - Breite 1500.00 mm | | Length Longueur - Laenge | | Net weight Poids net - netto Gewicht 13730 KG | | | | | | | | | | | | | | | | | | | | | | | |
| CHEMICAL ANALYSIS - ANALYSE CHIMIQUE - CHEMISCHE ZUSAMMENSETZUNG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | C | | Si | | Mn | | Ni | | Cr | | Mo | | Ti | | N | | S | | P | | Co | | | | | | | | | | | |
| Required -Exigé % mini Anforderung. % maxi | | 0.030 | | 0.75 | | 2.00 | | 8.00 10.50 | | 18.00 19.50 | | | | | | 0.100 | | 0.015 | | 0.045 | | | | | | | | | | | | | |
| Cast Analysis Analyse coulée Analyse Schmelze | | 0.024 | | 0.41 | | 1.42 | | 8.01 | | 18.02 | | | | | | 0.070 | | 0.002 | | 0.038 | | 0.169 | | | | | | | | | | | |
| | | C71 | | C72 | | C73 | | C74 | | C75 | | C76 | | C77 | | C78 | | C79 | | C80 | | C81 | | C82 | | C83 | | C84 | | C85 | | C86 | |
| Positive material identification carried out : OK Tests de vérification de la conformité de la nuance fournie : OK Verwechslungsprüfung wurde durchgeführt : OK | | | | | | | | | | | | | | | | D52 | | | | | | | | | | | | | | | | | |
| Location (1) | | MECHANICAL PROPERTIES - PROPRIETES MECANIQUES - MECHANISCHE WERTE EN ISO 6892-1 B / A-SA 370 | | | | | | | | | | C20 | | | | | | | | | | | | | | | | | | | | | |
| | | Room temperature - Température ambiante - Raumtemperatur | | | | | | | | | | Test temperature (°C) : | | C03 | | | | | | | | | | | | | | | | | | | |
| Direction (2) | | Yield or proof strength Limite d'élasticité Dehngrenze MPa | | | | Tensile Strength Résistance à la traction Zugfestigkeit MPa | | | | Elongation after fracture Allongement après rupt. Bruchdehnung % | | Hardness Dureté Haerte | | Yield or proof strength Limite d'élasticité Dehngrenze MPa | | Tensile str. Résist. MPa Zugfestigkeit | | Elongation % Allongement. Bruchdehnung | | | | | | | | | | | | | | | |
| | | Required Exigé Anforderung | | Rp0.2% | | Rp1% | | Rm | | 50mm | | 80mm | | HBW1 | | Rp0.2% | | Rp1% | | Rm | | 50mm | | | | | | | | | | | |
| 1 | | mini | | 230 | | 260 | | 540 700 | | 45 | | 45 | | 201 | | | | | | | | | | | | | | | | | | | |
| 2 | | Obtained Obtenu Ergebnisse | | 312 | | 343 | | 642 | | 55 | | 53 | | 168 177 | | | | | | | | | | | | | | | | | | | |
| | | C11 | | C14 | | C12 | | C13 | | C15 | | C31 | | C16 | | C17 | | C18 | | C19 | | | | | | | | | | | | | |
| Impact strength test Essai de résilience Kerbschlagzähigkeitstest | | Corrosion test Test de corrosion Korrosionstest | | | | E0.2(T)/R(T) % | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C40 | | t(°c) | | C44 | | | | 48 | | C50 | | C51 | | C52 | | C53 | | C54 | | C55 | | C05 | | | | | | | | | | | |
| | | | | | | | | EN ISO 3651/2 - A:OK | | D51 | | Internal cleanliness: | | A: | | B: | | C: | | D: | | C57 | | | | | | | | | | | |
| Location of the sample (1) Emplacement de l'échantillon Lage des Probenabschnittes 1. Front - Début - Anfang 2. Back - Fin - Ende 3. Middle - Milieu - Mitte | | The delivery is in accordance with the order La fourniture est conforme aux exigences de la commande Die lieferung entspricht den Bestellbedingungen | | | | Z01 | | Packing list Avis d'expédition Lieferscheinnummer 2024025977-100052 | | | | A10 | | Organisation inspection Organisme et/ou service contrôle Ueberwachungsabteilung Quality Department 23/1/2024  R. Vliegen The inspector Le responsable Der Werkssachverstaendige | | | | A05 | | Z02 | | | | | | | | | | | | | |
| Direction of the test pieces (2) Orientation des éprouvettes Probenrichtung T. Transverse - Travers - Quer L. Longitudinal - Long - Laengs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|  | Annex to certificate 24K0002310-01 V01 Annexe du CCPU Anlage Zum Zeugnis CE02 | | Certificate CCPU - Zeugnis 24K0002310-CE V01 CE05 |
| | Certificate of Production Control Number Numéro du certificat de contrôle de la production Zeugnisnummer von Produktionskontrolle 0036-CPD-43-2011 CE03 | |  |
| | Correspondance address Adresse de correspondance - Adresse für briefwechsel Swinnenwijerweg 5, Poort Genk 7523 3600 Genk, Belgium CE01 | Year 11 Année Jahr CE04 | |
| Manufacturer's works order number N° de la commande usine productrice Werksauftragsnummer 80884317/01-08457/H2L/01 CE07 | Purchaser and/or consignee Client et/ou destinataire Besteller und/oder Empfänger APERAM SS&S HAAN Aperam Allee 1 42781 Haan DEUTSCHLAND CE08 | | Purchaser's order number N° de commande client Kundenbestellnummer 312905560 CE09 Customer article number N° d'article client Artikelnummer des Kunden ART335885 CE10 |
| Identification of the product Identificaiton du produit - Identifizierung des Erzeugnisses | Dimensions Dimensions - Abmessungen | | |
| Coil n° N° de bobine - Band Nr 34657240 CE11 | Thickness Epaisseur - Dicke 1.50 mm CE12 | Width Largeur - Breite 1500.00 mm CE13 | Length Longueur - Laenge CE14 |
| Stainless steel / Acier inoxydable / Rostfreier Stahl CE15 | | | |
| EN10088-4 CE16 | | | |
| Intended uses : building constructions or civil engineering Usages prévus : construction immobilière ou génie civil Vorgesehene Verwendungen : Hochbauten und Ingenieurbauwerke CE17 | | | |
| Declaration of performance : Déclaration des performances : DOP.Nr.GNK.01.01/GNK.02.01 Leistungserklärung : DoP available on website Aperam : https://www.aperam.com/documentation CE18 | | | |
| Steel Acier 1.4307/1.4301 Werkstoff CE19 | | | |
| Cold rolled Laminé à froid Kaltgewalzt CE20 | | | |
| Coil / bobine / Band CE21 | | | |
| Elongation / Allongement / Bruchdehnung Tensile strength / Résistance à la traction / Zugfestigkeit Yield strength / Limite d'élasticité / Dehngrenze Impact strength / Résistance au choc / Kerbschlagzähigkeit Weldability / Aptitude au soudage / Schweisseignung Durability / Durabilité / Dauerhaftigkeit Characteristics expressed as indicated in the above mentioned DOP Tolerances on dimension and shape / Tolérances sur les dimensions et sur forme / Grenzabmasse und Formtoleranzen : EN ISO 9445 CE22 | | | |
| Regulated substance : no performance determined Substance réglementée : aucune performance déterminée Regulierter Stoff: keine Leistung festgestellt CE23 | | | |