

ArcelorMittal Gipuzkoa, S.L.U.
 Long Carbon Europe
 CARRETERA MADRID - IRUN, KM. 419
 20212 OLABERRIA (Guipúzcoa)
 TELEF. (943) 80.50.00 - FAX (943) 88.04.04



MILL TEST CERTIFICATE

OLA P-34830

| DISCHARGE ADDRESS | | CUSTOMER | |
|--|-------------------------|--|-----------------|
| Plesa Anahuac Y Cias, S.A. de C.V. Av. Valle de las Alamedas 66-O Col. S. Francisco Chilpan, Tul MEXICO | | Plesa Anahuac Y Cias, S.A. de C.V. Av. Valle de las Alamedas 66-O Col. S. Francisco Chilpan, Tul MEXICO | |
| SHIPPED AND CERTIFIED BY | | CREDIT NUMBER | PORT OF LOADING |
| ARCELORMITTAL OLABERRIA CARRETERA MADRID - IRUN, KM. 419 20212 OLABERRIA (Guipúzcoa) TELEF. (943) 80.50.00 - FAX (943) 88.04.04 | | | BILBAO, SPAIN |
| | | PORT OF DISCHARGE | VESSEL |
| | | VERACRUZ | NIKOL H. |
| OUR REFERENCE | CONTRACT NUMBER | ORDER NUMBER | DATE |
| mcabello | 01-E-43644 / 1700016168 | 15039 | 31/03/2013 |

Material: WF Vigas,

El exportador de los productos incluidos en el presente documento,
 Autorización aduanera no.

ARCELORMITTAL GIPUZKOA, S.L.U. ES/20/0040/03

Declara que, salvo indicación en sentido contrario, estos
 productos gozan de un origen preferencial ESPAÑA

| SIZE | LENGTH | BUNDLES | PIECES BUNDLES | TOTAL PIECES | WEIGHT BUNDLES | TOTAL WEIGHT | HEAT |
|----------------|--------|---------|-------------------|-----------------|-------------------|-----------------|---|
| +/RED | | | | | | | |
| WF BEAMS 8x31 | 40' | 7 | 8 | 56 | 4499 | 31.493 | 142744,142746,143641, 143661 |
| WF BEAMS 8x35 | 40' | 6 | 8 | 48 | 5081 | 30.486 | 143661,143668 |
| WF BEAMS 8x40 | 40' | 14 | 6 | 84 | 4355 | 60.970 | 142275,143659,143660 |
| WF BEAMS 10x19 | 40' | 1 | 13 | 13 | 4482 | 4.482 | 142360 |
| WF BEAMS 10x19 | 40' | 7 | 14 | 98 | 4827 | 33.789 | 143439,143469 |
| WF BEAMS 10x39 | 40' | 7 | 8 | 56 | 5661 | 39.627 | 138980,138981,140966, 143832,143833 |
| WF BEAMS 12x40 | 40' | 23 | 6 | 138 | 4355 | 100.165 | 143427,143438,143439, 143440 |
| WF BEAMS 14x22 | 40' | 21 | 12 | 252 | 4790 | 100.590 | 143426,143429 |
| WF BEAMS 14x68 | 40' | 12 | 4 | 48 | 4935 | 59.220 | 143666,143669 |
| WF BEAMS 14x74 | 40' | 10 | 3 | 30 | 4028 | 40.280 | 143663,143664 |
| WF BEAMS 16x26 | 40' | 35 | 6 | 210 | 2830 | 99.050 | 142311,142314,142315, 142316,142318,142321, 142325,142326 |
| WF BEAMS 16x26 | 40' | 1 | 2 | 2 | 943 | 943 | 143256 |
| WF BEAMS 16x31 | 40' | 12 | 6 | 72 | 3375 | 40.500 | 143255,143257,143719, 143720,143721,143722 |
| WF BEAMS 18x76 | 40' | 1 | 1 | 1 | 1379 | 1.379 | 142069 |

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| SIZE | LENGTH | BUNDLES | PIECES BUNDLES | TOTAL PIECES | WEIGHT BUNDLES | TOTAL WEIGHT | HEAT |
|----------------|--------|---------|----------------|--------------|----------------|--------------|--|
| WF BEAMS 18x76 | 40' | 36 | 3 | 108 | 4137 | 148.932 | 142834,142835,142836,143474,143475,143476,143477,143478,143480,143482,143484 |
| WF BEAMS 18x86 | 40' | 32 | 2 | 64 | 3121 | 99.872 | 143101,143102,143106,143485,143486,143716,143717 |
| WF BEAMS 21x44 | 40' | 25 | 5 | 125 | 3992 | 99.800 | 143672,143673,143674 |
| WF BEAMS 21x62 | 40' | 13 | 4 | 52 | 4500 | 58.500 | 140480,143636 |
| WF BEAMS 21x68 | 40' | 1 | 2 | 2 | 2468 | 2.468 | 142761 |
| WF BEAMS 21x68 | 40' | 12 | 4 | 48 | 4935 | 59.220 | 143641,143642 |
| WF BEAMS 21x73 | 40' | 1 | 1 | 1 | 1325 | 1.325 | 142737 |
| WF BEAMS 21x73 | 40' | 7 | 4 | 28 | 5298 | 37.086 | 143643,143644 |
| WF BEAMS 21x93 | 40' | 7 | 3 | 21 | 5062 | 35.434 | 143646 |
| WF BEAMS 24x55 | 40' | 20 | 5 | 100 | 4990 | 99.800 | 143610,143611 |
| WF BEAMS 24x55 | 40' | 1 | 1 | 1 | 998 | 998 | 142639 |
| WF BEAMS 24x62 | 40' | 1 | 2 | 2 | 2250 | 2.250 | 142645 |
| WF BEAMS 24x62 | 40' | 21 | 4 | 84 | 4500 | 94.500 | 143561,143612 |
| WF BEAMS 24x68 | 40' | 27 | 3 | 81 | 3701 | 99.927 | 143560,143561,143564 |
| WF BEAMS 24x84 | 40' | 17 | 3 | 51 | 4572 | 77.724 | 143290,143577,143578 |
| WF BEAMS 24x84 | 40' | 1 | 1 | 1 | 1524 | 1.524 | 142122 |
| WF BEAMS 24x94 | 40' | 1 | 1 | 1 | 1706 | 1.706 | 143290,143292 |
| WF BEAMS 24x94 | 40' | 6 | 3 | 18 | 5117 | 30.702 | 143583,143584 |

TOTAL BUNDLES 386

TOTAL WEIGHT 1.594.742 Kg.

A02 EN 10204/3.1

CSA G40.21 50W/ASTM A572 G50/A992/A6

(B01/B02/B03) A03

| COLADA HEAT | COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%) | | | | | | | | | | | | | | | | | | | | |
|----------------|---|-------|------|------|------|------|------|------|------|------|------|------|-----|--|--|--|--|--|--|--|--|
| | C | Mn | Si | P | S | V | Cr | Ni | Mo | Cu | Nb | Sn | CEV | | | | | | | | |
| 138980 | ,112 | 1,220 | ,190 | ,027 | ,017 | ,040 | ,140 | ,220 | ,042 | ,420 | ,003 | ,029 | ,40 | | | | | | | | |
| 138981 | ,119 | 1,200 | ,190 | ,025 | ,023 | ,041 | ,120 | ,160 | ,040 | ,360 | ,003 | ,053 | ,39 | | | | | | | | |
| 140480 | ,103 | 1,130 | ,190 | ,018 | ,015 | ,031 | ,140 | ,160 | ,039 | ,360 | ,003 | ,053 | ,37 | | | | | | | | |
| 140966 | ,106 | 1,170 | ,200 | ,024 | ,010 | ,042 | ,170 | ,120 | ,024 | ,440 | ,003 | ,042 | ,39 | | | | | | | | |
| 142069 | ,093 | 1,000 | ,170 | ,014 | ,019 | ,040 | ,090 | ,160 | ,046 | ,410 | ,003 | ,023 | ,33 | | | | | | | | |
| 142122 | ,103 | 1,050 | ,180 | ,026 | ,013 | ,043 | ,130 | ,140 | ,025 | ,500 | ,003 | ,041 | ,36 | | | | | | | | |
| 142275 | ,107 | ,990 | ,200 | ,020 | ,025 | ,033 | ,170 | ,250 | ,058 | ,440 | ,003 | ,039 | ,37 | | | | | | | | |
| 142311 | ,085 | 1,000 | ,180 | ,015 | ,015 | ,035 | ,080 | ,160 | ,033 | ,290 | ,003 | ,022 | ,31 | | | | | | | | |
| 142314 | ,083 | 1,030 | ,190 | ,021 | ,014 | ,036 | ,120 | ,190 | ,033 | ,390 | ,003 | ,034 | ,33 | | | | | | | | |
| 142315 | ,097 | 1,030 | ,200 | ,029 | ,011 | ,036 | ,200 | ,180 | ,042 | ,470 | ,003 | ,045 | ,37 | | | | | | | | |
| 142316 | ,091 | 1,010 | ,190 | ,023 | ,017 | ,037 | ,160 | ,200 | ,040 | ,460 | ,003 | ,046 | ,35 | | | | | | | | |
| 142318 | ,085 | 1,030 | ,190 | ,019 | ,018 | ,037 | ,140 | ,240 | ,054 | ,410 | ,003 | ,044 | ,35 | | | | | | | | |
| 142321 | ,090 | ,980 | ,160 | ,022 | ,008 | ,033 | ,120 | ,200 | ,034 | ,410 | ,003 | ,036 | ,33 | | | | | | | | |
| 142325 | ,117 | 1,030 | ,190 | ,024 | ,015 | ,040 | ,190 | ,210 | ,046 | ,400 | ,003 | ,032 | ,38 | | | | | | | | |

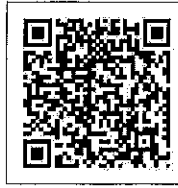
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OLA P-34830

| COLADA HEAT | COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%) | | | | | | | | | | | | | | | | | | |
|----------------|---|-------|------|------|------|------|------|------|------|------|------|------|-----|--|--|--|--|--|--|
| | C | Mn | Si | P | S | V | Cr | Ni | Mo | Cu | Nb | Sn | CEV | | | | | | |
| 142326 | ,095 | ,980 | ,170 | ,021 | ,015 | ,036 | ,180 | ,220 | ,039 | ,360 | ,003 | ,040 | ,35 | | | | | | |
| 142360 | ,083 | 1,020 | ,160 | ,018 | ,020 | ,032 | ,180 | ,200 | ,042 | ,350 | ,003 | ,038 | ,34 | | | | | | |
| 142639 | ,184 | 1,070 | ,200 | ,035 | ,019 | ,032 | ,180 | ,190 | ,027 | ,370 | ,003 | ,037 | ,45 | | | | | | |
| 142645 | ,076 | 1,030 | ,190 | ,039 | ,011 | ,036 | ,200 | ,190 | ,029 | ,450 | ,003 | ,042 | ,34 | | | | | | |
| 142737 | ,090 | 1,070 | ,200 | ,015 | ,026 | ,036 | ,110 | ,290 | ,046 | ,530 | ,003 | ,027 | ,36 | | | | | | |
| 142744 | ,086 | 1,000 | ,180 | ,022 | ,020 | ,038 | ,120 | ,240 | ,025 | ,390 | ,003 | ,034 | ,33 | | | | | | |
| 142746 | ,093 | 1,000 | ,200 | ,019 | ,017 | ,037 | ,120 | ,230 | ,027 | ,420 | ,003 | ,031 | ,34 | | | | | | |
| 142761 | ,065 | 1,040 | ,190 | ,025 | ,027 | ,042 | ,160 | ,180 | ,029 | ,410 | ,003 | ,024 | ,32 | | | | | | |
| 142834 | ,087 | 1,030 | ,190 | ,017 | ,014 | ,035 | ,150 | ,180 | ,020 | ,350 | ,003 | ,017 | ,34 | | | | | | |
| 142835 | ,108 | 1,030 | ,190 | ,022 | ,013 | ,038 | ,140 | ,210 | ,029 | ,360 | ,003 | ,019 | ,36 | | | | | | |
| 142836 | ,070 | 1,030 | ,170 | ,026 | ,027 | ,039 | ,150 | ,190 | ,024 | ,360 | ,003 | ,017 | ,32 | | | | | | |
| 143101 | ,105 | ,990 | ,200 | ,013 | ,006 | ,037 | ,100 | ,240 | ,051 | ,350 | ,003 | ,020 | ,35 | | | | | | |
| 143102 | ,081 | 1,020 | ,210 | ,016 | ,018 | ,040 | ,130 | ,200 | ,032 | ,330 | ,003 | ,019 | ,33 | | | | | | |
| 143106 | ,082 | ,990 | ,180 | ,015 | ,020 | ,040 | ,100 | ,160 | ,027 | ,370 | ,003 | ,022 | ,32 | | | | | | |
| 143255 | ,100 | 1,040 | ,200 | ,013 | ,035 | ,036 | ,080 | ,150 | ,022 | ,330 | ,003 | ,030 | ,33 | | | | | | |
| 143256 | ,095 | ,990 | ,180 | ,015 | ,037 | ,035 | ,090 | ,160 | ,022 | ,390 | ,003 | ,035 | ,33 | | | | | | |
| 143257 | ,096 | ,980 | ,170 | ,017 | ,023 | ,035 | ,100 | ,150 | ,022 | ,370 | ,003 | ,031 | ,33 | | | | | | |
| 143290 | ,101 | 1,000 | ,170 | ,030 | ,014 | ,038 | ,130 | ,170 | ,034 | ,430 | ,003 | ,033 | ,35 | | | | | | |
| 143292 | ,098 | 1,010 | ,170 | ,019 | ,021 | ,040 | ,140 | ,220 | ,043 | ,340 | ,003 | ,033 | ,35 | | | | | | |
| 143426 | ,089 | 1,000 | ,180 | ,018 | ,023 | ,041 | ,200 | ,180 | ,028 | ,430 | ,007 | ,037 | ,35 | | | | | | |
| 143427 | ,090 | 1,340 | ,190 | ,015 | ,024 | ,086 | ,140 | ,200 | ,033 | ,460 | ,004 | ,033 | ,41 | | | | | | |
| 143429 | ,101 | ,980 | ,190 | ,018 | ,022 | ,036 | ,130 | ,170 | ,025 | ,440 | ,006 | ,031 | ,34 | | | | | | |
| 143438 | ,081 | ,990 | ,190 | ,018 | ,023 | ,040 | ,130 | ,210 | ,042 | ,360 | ,003 | ,023 | ,33 | | | | | | |
| 143439 | ,111 | ,980 | ,170 | ,021 | ,012 | ,043 | ,100 | ,250 | ,041 | ,390 | ,005 | ,025 | ,35 | | | | | | |
| 143440 | ,112 | 1,080 | ,190 | ,022 | ,012 | ,040 | ,160 | ,220 | ,043 | ,380 | ,007 | ,022 | ,38 | | | | | | |
| 143469 | ,068 | 1,030 | ,200 | ,015 | ,024 | ,040 | ,090 | ,180 | ,031 | ,340 | ,003 | ,020 | ,31 | | | | | | |
| 143474 | ,079 | 1,000 | ,190 | ,015 | ,021 | ,035 | ,100 | ,180 | ,034 | ,350 | ,003 | ,019 | ,31 | | | | | | |
| 143475 | ,079 | 1,010 | ,180 | ,016 | ,024 | ,035 | ,100 | ,170 | ,029 | ,300 | ,007 | ,018 | ,31 | | | | | | |
| 143476 | ,092 | ,990 | ,180 | ,018 | ,033 | ,034 | ,100 | ,180 | ,026 | ,320 | ,003 | ,019 | ,32 | | | | | | |
| 143477 | ,105 | 1,030 | ,220 | ,026 | ,027 | ,036 | ,140 | ,180 | ,027 | ,310 | ,003 | ,019 | ,35 | | | | | | |
| 143478 | ,090 | 1,000 | ,200 | ,021 | ,030 | ,032 | ,150 | ,180 | ,026 | ,330 | ,003 | ,021 | ,33 | | | | | | |
| 143480 | ,085 | 1,000 | ,190 | ,022 | ,023 | ,034 | ,160 | ,200 | ,033 | ,350 | ,003 | ,019 | ,33 | | | | | | |
| 143482 | ,090 | 1,040 | ,200 | ,026 | ,021 | ,036 | ,180 | ,190 | ,033 | ,420 | ,004 | ,019 | ,35 | | | | | | |
| 143484 | ,099 | ,990 | ,200 | ,023 | ,019 | ,035 | ,150 | ,180 | ,028 | ,320 | ,003 | ,017 | ,34 | | | | | | |
| 143485 | ,119 | ,970 | ,210 | ,024 | ,018 | ,034 | ,160 | ,190 | ,027 | ,310 | ,003 | ,017 | ,36 | | | | | | |
| 143486 | ,080 | 1,000 | ,180 | ,020 | ,013 | ,037 | ,140 | ,190 | ,027 | ,330 | ,005 | ,018 | ,32 | | | | | | |
| 143560 | ,073 | 1,040 | ,180 | ,014 | ,028 | ,033 | ,170 | ,260 | ,075 | ,360 | ,003 | ,022 | ,34 | | | | | | |
| 143561 | ,075 | 1,020 | ,200 | ,022 | ,024 | ,033 | ,180 | ,270 | ,069 | ,750 | ,003 | ,039 | ,37 | | | | | | |
| 143564 | ,099 | 1,050 | ,170 | ,034 | ,014 | ,034 | ,280 | ,220 | ,051 | ,520 | ,008 | ,037 | ,40 | | | | | | |
| 143577 | ,108 | ,990 | ,210 | ,029 | ,013 | ,036 | ,200 | ,240 | ,058 | ,330 | ,003 | ,031 | ,37 | | | | | | |
| 143578 | ,092 | 1,000 | ,180 | ,014 | ,018 | ,036 | ,130 | ,290 | ,059 | ,370 | ,003 | ,028 | ,35 | | | | | | |
| 143583 | ,071 | 1,000 | ,190 | ,018 | ,019 | ,037 | ,110 | ,170 | ,032 | ,430 | ,003 | ,029 | ,31 | | | | | | |
| 143584 | ,081 | ,970 | ,190 | ,022 | ,010 | ,039 | ,150 | ,190 | ,040 | ,420 | ,003 | ,030 | ,33 | | | | | | |
| 143610 | ,077 | 1,000 | ,200 | ,020 | ,015 | ,038 | ,150 | ,220 | ,043 | ,350 | ,003 | ,036 | ,33 | | | | | | |
| 143611 | ,105 | 1,020 | ,190 | ,026 | ,013 | ,037 | ,190 | ,240 | ,045 | ,370 | ,003 | ,035 | ,37 | | | | | | |
| 143612 | ,089 | ,970 | ,190 | ,022 | ,014 | ,038 | ,140 | ,210 | ,033 | ,390 | ,004 | ,038 | ,33 | | | | | | |
| 143636 | ,104 | 1,010 | ,200 | ,015 | ,012 | ,038 | ,160 | ,240 | ,037 | ,350 | ,003 | ,021 | ,36 | | | | | | |
| 143641 | ,076 | 1,010 | ,190 | ,026 | ,026 | ,036 | ,140 | ,210 | ,035 | ,400 | ,006 | ,031 | ,33 | | | | | | |

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MILL TEST CERTIFICATE

OLA P-34830

| COLADA HEAT | COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%) | | | | | | | | | | | | |
|----------------|---|-------|------|------|------|------|------|------|------|------|------|------|-----|
| | C | Mn | Si | P | S | V | Cr | Ni | Mo | Cu | Nb | Sn | CEV |
| 509 | | | | | | | | | | | | | |
| 143642 | ,075 | ,990 | ,170 | ,020 | ,018 | ,037 | ,110 | ,210 | ,031 | ,370 | ,003 | ,025 | ,31 |
| 143643 | ,087 | ,970 | ,180 | ,021 | ,018 | ,036 | ,100 | ,190 | ,036 | ,420 | ,003 | ,031 | ,32 |
| 143644 | ,099 | ,990 | ,170 | ,021 | ,018 | ,037 | ,120 | ,230 | ,037 | ,500 | ,005 | ,036 | ,35 |
| 143646 | ,113 | 1,000 | ,190 | ,029 | ,023 | ,040 | ,140 | ,170 | ,030 | ,390 | ,004 | ,051 | ,36 |
| 143659 | ,088 | 1,020 | ,190 | ,020 | ,018 | ,036 | ,120 | ,190 | ,024 | ,480 | ,005 | ,025 | ,34 |
| 143660 | ,075 | 1,030 | ,220 | ,019 | ,034 | ,039 | ,130 | ,190 | ,026 | ,440 | ,003 | ,021 | ,33 |
| 143661 | ,074 | 1,000 | ,190 | ,026 | ,012 | ,038 | ,140 | ,190 | ,031 | ,460 | ,003 | ,027 | ,33 |
| 143663 | ,094 | ,990 | ,200 | ,024 | ,016 | ,046 | ,110 | ,160 | ,021 | ,410 | ,003 | ,035 | ,33 |
| 143664 | ,094 | ,990 | ,170 | ,024 | ,016 | ,037 | ,120 | ,200 | ,027 | ,350 | ,003 | ,035 | ,33 |
| 143666 | ,089 | 1,020 | ,190 | ,014 | ,017 | ,037 | ,100 | ,200 | ,028 | ,390 | ,003 | ,034 | ,33 |
| 143668 | ,091 | ,980 | ,160 | ,027 | ,014 | ,037 | ,130 | ,160 | ,016 | ,390 | ,005 | ,026 | ,33 |
| 143669 | ,081 | 1,000 | ,190 | ,028 | ,010 | ,038 | ,130 | ,170 | ,016 | ,390 | ,004 | ,025 | ,32 |
| 143672 | ,060 | ,940 | ,160 | ,019 | ,012 | ,036 | ,080 | ,180 | ,019 | ,350 | ,004 | ,025 | ,28 |
| 143673 | ,066 | ,990 | ,200 | ,027 | ,010 | ,037 | ,080 | ,140 | ,012 | ,380 | ,005 | ,029 | ,29 |
| 143674 | ,076 | ,990 | ,180 | ,023 | ,015 | ,037 | ,090 | ,140 | ,021 | ,400 | ,003 | ,027 | ,31 |
| 143716 | ,077 | ,970 | ,170 | ,026 | ,025 | ,035 | ,100 | ,190 | ,029 | ,440 | ,003 | ,023 | ,31 |
| 143717 | ,086 | 1,040 | ,180 | ,027 | ,019 | ,034 | ,120 | ,190 | ,029 | ,460 | ,006 | ,023 | ,34 |
| 143719 | ,086 | 1,000 | ,190 | ,023 | ,018 | ,035 | ,140 | ,220 | ,035 | ,430 | ,005 | ,028 | ,34 |
| 143720 | ,112 | ,990 | ,160 | ,029 | ,016 | ,032 | ,150 | ,230 | ,038 | ,390 | ,003 | ,022 | ,36 |
| 143721 | ,092 | 1,010 | ,160 | ,040 | ,016 | ,036 | ,140 | ,170 | ,020 | ,360 | ,007 | ,018 | ,33 |
| 143722 | ,087 | 1,020 | ,160 | ,030 | ,014 | ,039 | ,110 | ,160 | ,017 | ,370 | ,006 | ,019 | ,33 |
| 143832 | ,075 | 1,020 | ,180 | ,020 | ,021 | ,037 | ,110 | ,180 | ,031 | ,330 | ,003 | ,029 | ,31 |
| 143833 | ,073 | ,990 | ,180 | ,019 | ,023 | ,036 | ,080 | ,160 | ,021 | ,390 | ,003 | ,031 | ,30 |

| MATERIAL SIZE | COLADA HEAT | PROPIEDADES MECANICAS MECHANICAL PROPERTIES | | | | | |
|------------------|----------------|--|-----|-----------|-----|-------------|------|
| | | ReH MPa | | Rm MPa | | A% LO=8" | |
| B11 | B03 | C11 | | C12 | | C13 | |
| W-10x19 | 142360 | 417 | 409 | 540 | 525 | 26,7 | 26,4 |
| W-10x19 | 143439 | 429 | 428 | 588 | 568 | 22,4 | 22, |
| W-10x19 | 143469 | 439 | 423 | 567 | 543 | 22,4 | 22,1 |
| W-10x39 | 138980 | 407 | 406 | 552 | 535 | 23,8 | 23,2 |
| W-10x39 | 138981 | 450 | 433 | 594 | 595 | 23,3 | 23,1 |
| W-10x39 | 140966 | 410 | 408 | 551 | 529 | 22,4 | 21,7 |
| W-10x39 | 143832 | 387 | 381 | 524 | 514 | 25,2 | 24,3 |
| W-10x39 | 143833 | 397 | 381 | 514 | 514 | 23,7 | 23,3 |
| W-12x40 | 143427 | 449 | 450 | 598 | 592 | 22,7 | 22,5 |
| W-12x40 | 143438 | 426 | 412 | 554 | 538 | 24,1 | 23,3 |
| W-12x40 | 143439 | 422 | 418 | 557 | 535 | 22,6 | 21,9 |
| W-12x40 | 143440 | 420 | 414 | 561 | 559 | 23, | 22,7 |
| W-14x22 | 143426 | 430 | 423 | 577 | 561 | 22,6 | 22,2 |
| W-14x22 | 143429 | 422 | 418 | 573 | 567 | 22,2 | 22, |
| W-14x68 | 143666 | 388 | 382 | 501 | 497 | 23,4 | 23,2 |
| W-14x68 | 143669 | 393 | 377 | 500 | 486 | 24,1 | 23,9 |
| W-14x74 | 143663 | 397 | 380 | 509 | 507 | 23,4 | 23,2 |
| W-14x74 | 143664 | 403 | 387 | 522 | 505 | 23,3 | 22,5 |
| W-16x26 | 142311 | 405 | 400 | 525 | 518 | 23,3 | 22,8 |
| W-16x26 | 142314 | 410 | 400 | 511 | 507 | 24,1 | 24, |
| W-16x26 | 142315 | 417 | 405 | 530 | 519 | 23,6 | 23, |

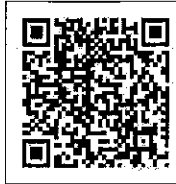
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20212 OLABERRIA (Guipúzcoa)

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MILL TEST CERTIFICATE

OLA P-34830

| MATERIAL SIZE | COLADA HEAT | PROPIEDADES MECANICAS MECHANICAL PROPERTIES | | | | | |
|------------------|----------------|--|-----|-----------|-----|-------------|------|
| | | ReH MPa | | Rm MPa | | A% L0=8" | |
| B11 | B08 | C11 | | C12 | | C13 | |
| W-16x26 | 142316 | 425 | 409 | 516 | 516 | 26,1 | 25,6 |
| W-16x26 | 142318 | 392 | 378 | 506 | 498 | 22,8 | 22,3 |
| W-16x26 | 142321 | 406 | 395 | 511 | 502 | 23,1 | 22,5 |
| W-16x26 | 142325 | 437 | 431 | 551 | 530 | 22,6 | 22,1 |
| W-16x26 | 142326 | 444 | 439 | 579 | 574 | 22,4 | 22, |
| W-16x26 | 143256 | 392 | 385 | 520 | 514 | 23,7 | 22,8 |
| W-16x31 | 143255 | 403 | 399 | 518 | 516 | 23,4 | 23,2 |
| W-16x31 | 143257 | 413 | 405 | 524 | 514 | 23,6 | 23,4 |
| W-16x31 | 143719 | 407 | 399 | 556 | 548 | 25,6 | 24,8 |
| W-16x31 | 143720 | 405 | 399 | 530 | 528 | 23,1 | 22,8 |
| W-16x31 | 143721 | 412 | 406 | 528 | 520 | 23,9 | 23,1 |
| W-16x31 | 143722 | 409 | 405 | 541 | 517 | 25,2 | 24,6 |
| W-18x76 | 142069 | 383 | 375 | 508 | 504 | 25,6 | 25, |
| W-18x76 | 142834 | 403 | 397 | 534 | 516 | 26,3 | 25,3 |
| W-18x76 | 142835 | 392 | 390 | 531 | 521 | 25, | 24,6 |
| W-18x76 | 142836 | 378 | 362 | 498 | 494 | 25,4 | 25,3 |
| W-18x76 | 143474 | 406 | 398 | 483 | 527 | 24,8 | 25,7 |
| W-18x76 | 143475 | 446 | 441 | 607 | 583 | 25,9 | 25,9 |
| W-18x76 | 143476 | 406 | 392 | 517 | 515 | 22,9 | 22,3 |
| W-18x76 | 143477 | 376 | 374 | 504 | 492 | 22,7 | 22,6 |
| W-18x76 | 143478 | 388 | 374 | 499 | 499 | 27,2 | 26,4 |
| W-18x76 | 143480 | 390 | 376 | 507 | 495 | 25,9 | 25,3 |
| W-18x76 | 143482 | 396 | 384 | 518 | 497 | 23,4 | 22,5 |
| W-18x76 | 143484 | 402 | 386 | 519 | 517 | 24,9 | 24,3 |
| W-18x86 | 143101 | 408 | 402 | 534 | 514 | 22,2 | 22, |
| W-18x86 | 143102 | 410 | 396 | 536 | 535 | 24,3 | 23,8 |
| W-18x86 | 143106 | 426 | 426 | 579 | 557 | 22,3 | 22,3 |
| W-18x86 | 143485 | 407 | 394 | 543 | 529 | 23,6 | 23,5 |
| W-18x86 | 143486 | 391 | 386 | 521 | 509 | 25,6 | 25,4 |
| W-18x86 | 143716 | 391 | 387 | 510 | 502 | 24,6 | 23,7 |
| W-18x86 | 143717 | 402 | 396 | 527 | 507 | 23,4 | 22,9 |
| W-21x44 | 143672 | 383 | 381 | 487 | 479 | 23,6 | 22,7 |
| W-21x44 | 143673 | 396 | 390 | 506 | 491 | 22,3 | 22,1 |
| W-21x44 | 143674 | 406 | 390 | 506 | 504 | 23,4 | 23, |
| W-21x62 | 140480 | 413 | 403 | 535 | 517 | 23,4 | 22,9 |
| W-21x62 | 143636 | 378 | 403 | 511 | 498 | 23,8 | 24,3 |
| W-21x68 | 142761 | 368 | 373 | 491 | 497 | 23,4 | 23,4 |
| W-21x68 | 143641 | 401 | 383 | 514 | 498 | 24,4 | 24, |
| W-21x68 | 143642 | 396 | 386 | 513 | 501 | 22,9 | 22,6 |
| W-21x73 | 142737 | 394 | 381 | 525 | 513 | 22,6 | 22,1 |
| W-21x73 | 143643 | 425 | 407 | 553 | 529 | 24,2 | 23,3 |
| W-21x73 | 143644 | 407 | 399 | 535 | 523 | 22,6 | 22,4 |
| W-21x93 | 143646 | 414 | 398 | 540 | 528 | 23,4 | 22,6 |
| W-24x55 | 142639 | 432 | 430 | 576 | 573 | 22,6 | 22,5 |
| W-24x55 | 143610 | 402 | 390 | 521 | 505 | 23,1 | 22,9 |
| W-24x55 | 143611 | 401 | 387 | 515 | 495 | 22,9 | 22,5 |
| W-24x62 | 142645 | 399 | 393 | 543 | 533 | 22,5 | 22,3 |
| W-24x62 | 143561 | 395 | 383 | 511 | 494 | 23,4 | 22,9 |

ArcelorMittal Gipuzkoa, S.L.U.

Long Carbon Europe

CARRETERA MADRID - IRUN, KM. 419

20212 OLABERRIA (Guipúzcoa)

TELEF. (943) 80.50.00 - FAX (943) 88.04.04



MILL TEST CERTIFICATE

OLA P-34830


| MATERIAL SIZE | COLADA HEAT | PROPIEDADES MECANICAS MECHANICAL PROPERTIES | | | | | |
|------------------|----------------|--|-----|-----------|-----|-------------|------|
| | | ReH MPa | | Rm MPa | | A% L0=8" | |
| B11 | B08 | C11 | | C12 | | C13 | |
| W-24x62 | 143612 | 391 | 381 | 501 | 489 | 25, | 24,2 |
| W-24x68 | 143560 | 418 | 415 | 539 | 518 | 22,6 | 21,9 |
| W-24x68 | 143561 | 416 | 404 | 519 | 517 | 22,4 | 21,8 |
| W-24x68 | 143564 | 422 | 414 | 537 | 527 | 22,4 | 22,3 |
| W-24x84 | 142122 | 400 | 392 | 538 | 516 | 23,2 | 23,2 |
| W-24x84 | 143290 | 382 | 391 | 519 | 543 | 22,6 | 22,9 |
| W-24x84 | 143577 | 402 | 392 | 525 | 519 | 23, | 22,3 |
| W-24x84 | 143578 | 384 | 374 | 516 | 507 | 22,6 | 22,4 |
| W-24x94 | 143290 | 392 | 388 | 531 | 509 | 24,7 | 23,7 |
| W-24x94 | 143292 | 390 | 374 | 510 | 508 | 23,9 | 23,3 |
| W-24x94 | 143583 | 398 | 395 | 526 | 504 | 22,5 | 22,1 |
| W-24x94 | 143584 | 397 | 391 | 500 | 488 | 22,6 | 22,1 |
| W-8x31 | 142744 | 390 | 386 | 520 | 515 | 24,2 | 23,9 |
| W-8x31 | 142746 | 401 | 389 | 523 | 509 | 24,7 | 24, |
| W-8x31 | 143641 | 387 | 384 | 509 | 500 | 23,1 | 22,8 |
| W-8x31 | 143661 | 379 | 405 | 518 | 494 | 22,8 | 21,9 |
| W-8x35 | 143661 | 397 | 395 | 508 | 504 | 23,5 | 23, |
| W-8x35 | 143668 | 407 | 397 | 518 | 500 | 22,4 | 22,2 |
| W-8x40 | 142275 | 395 | 384 | 527 | 510 | 22,5 | 22,3 |
| W-8x40 | 143659 | 407 | 397 | 536 | 517 | 22,5 | 22,2 |
| W-8x40 | 143660 | 408 | 400 | 519 | 517 | 22,3 | 22,3 |

85 análisis

Z01

D01: Certificamos que los aceros arriba indicados han sido satisfactoriamente probados de acuerdo con la especificación.

B08: Marca AMO


 Lorenzo Zabala