

Issuing Date : 08/12/2014      B/L No. : 394786      Load No. : 399370      Our Order No. : 118317/27      Cust. Order No. : 17531  
 Vehicle No: TTPX 81828      Sold To : PLESA ANAHUAC Y CIAS SA DE CV      Ship To : ALMACEN FERROVIARIO ROAN SA DE CV  
 Specification : 11.1mm x 2514.6mm x 8813.8mm      PERIFERICO MTY ALLENDE KM 34.1  
 AAR TC128-B Normalized Plate CPC-1154 (6-20-03) CPC-1241 (6/20/13).      ESCOBEDO,NL 66050  
 M-1002 App M Sec 5

Marking :

Heat No	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	N	Ca	B	Sn	Al(sol)	CEQ	PCM
4505051	0.22	1.52	0.011	0.001	0.20	0.26	0.10	0.11	0.02	0.035	0.002	0.002	0.0086	0.0016	0.0001	0.010	0.02	0.5295	0.3279
4505052	0.23	1.45	0.011	0.003	0.20	0.25	0.09	0.12	0.02	0.032	0.002	0.002	0.0083	0.0018	0.0001	0.010	0.04	0.5271	0.3330

  

Metric Results			Tensile Test				Heat Treat				Charpy Impacts						BHN				
Plate Serial		Tons	Dir.	Yield (psi)	Tensile (psi)	Elong. % in 2"	Elong. % in 8"	Norm °C	Time (min)	Temper °C	Time (min)	-----Absorbed Energy (Ft-lbs)-----				-----Lateral Expansion (in.)-----				Temp °C	
No	Pieces											1	2	3	Ave	Min	1	2	3		Ave
4505051-05	1	1.93	T	461	647	31.3		899	21												
4505052-04	1	1.93	T	465	656	34.7		899	21												
4505052-06	4	7.73	T	441	629	31.0		899	21												

Manufactured to fully killed fine grain practice by Electric Arc Furnace. Welding or weld repair was not performed on this material. Mercury has not been used in the direct manufacturing of this material. Produced as continuous cast discrete plate, unless otherwise noted in Specification. For Mexico shipments: nhc-SalesMX@Nucor.com

Yield by 0.5EUL method unless otherwise specified. Ceq = C+(Mn/6)+((Cr+Mo+V)/5)+((Cu+Ni)/15)

Pcm = C+(Si/30)+(Mn/20)+(Cu/20)+(Ni/60)+(Cr/20)+(Mo/15)+(V/10)+5B

Melted and manufactured in the USA. ISO 9001:2008 certified (#010940) by SRI Quality System Registrar (#0985-09). PED 97/23/EC 7/2 Annex 1, Para. 4.3 Compliant. DIN 50049 3.1.B/EN 10204 3.1B(2004), DIN EN 10204 3.1(2005) compliant. For ABS grades only, Quality Assurance certificate 14-MMPQA-723

We hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with the applicable specifications, including customer specifications.



T. A. Depretis, Metallurgist

08/18/2014 8:28:07 AM

# Mill Test Report



Issuing Date : 08/12/2014      B/L No. : 394786      Load No. : 399370      Our Order No. : 118317/35      Cust. Order No. : 17531  
 Vehicle No: TTPX 81828      Sold To : PLESA ANAHUAC Y CIAS SA DE CV      Ship To : ALMACEN FERROVIARIO ROAN SA DE CV  
 Specification : 11.1mm x 2514.6mm x 8813.8mm      PERIFERICO MTY ALLENDE KM 34.1      ESCOBEDO,NL 66050  
 AAR TC128-B Normalized Plate CPC-1154 (6-20-03) CPC-1241 (6/20/13).      ESCOBEDO,NL 66050  
 M-1002 App M Sec 5

Marking :

Heat No	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	N	Ca	B	Sn	Al(sol)	CEQ	PCM
4505618	0.22	1.45	0.014	0.001	0.20	0.23	0.09	0.12	0.01	0.036	0.003	0.002	0.0072	0.0023	0.0001	0.009	0.03	0.5128	0.3191

  

Metric Results			Tensile Test				Heat Treat				Charpy Impacts							BHN						
Plate Serial No	Pieces	Tons	Dir.	Yield (psi)	Tensile (psi)	Elong. % in 2"	Elong. % in 8"	Norm °C	Time (min)	Temper °C	Time (min)	Absorbed Energy (Ft-lbs)				Lateral Expansion (in.)			Temp °C					
												Dir.	1	2	3	Ave	Min	1	2	3	Ave	Min		
4505618-10	1	1.93	T	469	648	32.0		899	21															

Manufactured to fully killed fine grain practice by Electric Arc Furnace. Welding or weld repair was not performed on this material. Mercury has not been used in the direct manufacturing of this material. Produced as continuous cast discrete plate, unless otherwise noted in Specification. For Mexico shipments: nhc-SalesMX@Nucor.com  
 Yield by 0.5EUL method unless otherwise specified. Ceq = C+(Mn/6)+((Cr+Mo+V)/5)+((Cu+Ni)/15)  
 Pcm = C+(Si/30)+(Mn/20)+(Cu/20)+(Ni/60)+(Cr/20)+(Mo/15)+(V/10)+5B  
 Melted and manufactured in the USA. ISO 9001:2008 certified (#010940) by SRI Quality System Registrar (#0985-09). PED 97/23/EC 7/2 Annex 1, Para. 4.3 Compliant.  
 DIN 50049 3.1.B/EN 10204 3.1B(2004), DIN EN 10204 3.1(2005) compliant. For ABS grades only, Quality Assurance certificate 14-MMPQA-723

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*T. A. Depretis*

T. A. Depretis, Metallurgist

08/18/2014 8:28:07 AM

Issuing Date : 08/12/2014      B/L No. : 394786      Load No. : 399370      Our Order No. : 118317/36      Cust. Order No. : 17531  
 Vehicle No: TTPX 81828      Sold To : PLESA ANAHUAC Y CIAS SA DE CV      Ship To : ALMACEN FERROVIARIO ROAN SA DE CV  
 Specification : 15.9mm x 2438.4mm x 6096.0mm      PERIFERICO MTY ALLENDE KM 34.1  
 AAR TC128-B Normalized Plate CPC-1154 (6-20-03) CPC-1241 (6/20/13).      ESCOBEDO,NL 66050  
 M-1002 App M Sec 5      NUEVO LEON  
 ESCOBEDO,NL 66050

Marking :

Heat No	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	N	Ca	B	Sn	Al(sol)	CEQ	PCM
4505621	0.22	1.45	0.015	0.001	0.23	0.29	0.11	0.12	0.01	0.031	0.003	0.002	0.0093	0.0028	0.0002	0.011	0.03	0.5163	0.3225
4505622	0.22	1.44	0.009	0.000	0.20	0.25	0.08	0.12	0.01	0.031	0.003	0.002	0.0095	0.0019	0.0002	0.010	0.02	0.5146	0.3234
4505631	0.22	1.44	0.020	0.003	0.20	0.14	0.06	0.16	0.01	0.038	0.003	0.002	0.0100	0.0021	0.0001	0.007	0.02	0.5151	0.3197

Metric Results				Tensile Test				Heat Treat				Charpy Impacts							BHN					
Plate Serial No	Pieces	Tons	Dir.	Yield (psi)	Tensile (psi)	Elong. % in 2"	Elong. % in 8"	Norm °C	Time (min)	Temper °C	Time (min)	Absorbed Energy (Ft-lbs)				Lateral Expansion (in.)				Temp °C				
												Dir.	1	2	3	Ave	Min	1	2	3	Ave	Min		
4505621-08	2	3.70	T	448	634	36.1		899	27															
4505622-01	2	3.70	T	434	621	35.8		899	27															
4505622-02	1	1.85	T	434	621	36.3		899	27															
4505622-05	8	14.81	T	427	621	35.7		899	27															
4505622-07	9	16.67	T	441	621	35.7		899	27															
4505631-01	2	3.70	T	441	614	34.6		899	27															
4505631-03	6	11.11	T	483	662	36.1		899	27															
4505631-04	3	5.55	T	434	621	34.4		899	27															

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Yield by 0.5EUL method unless otherwise specified. Ceq = C+(Mn/6)+((Cr+Mo+V)/5)+((Cu+Ni)/15)

Pcm = C+(Si/30)+(Mn/20)+(Cu/20)+(Ni/60)+(Cr/20)+(Mo/15)+(V/10)+5B

Melted and manufactured in the USA. ISO 9001:2008 certified (#010940) by SRI Quality System Registrar (#0985-09). PED 97/23/EC 7/2 Annex 1, Para. 4.3 Compliant. DIN 50049 3.1.B/EN 10204 3.1B(2004), DIN EN 10204 3.1(2005) compliant. For ABS grades only, Quality Assurance certificate 14-MMPQA-723

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