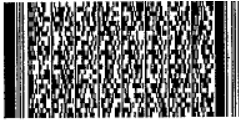




Mill Bundle - 2D Barcode Standard

Mill - 2D Barcode Standard

Sample 2D Barcode — contains all information about the bundle, including quantity, size, grade, length, heat number, etc. Does not need to link back to a network or database to provide data to rebar client.

Bundle #: 5095192208 Area/Bin: Initials <input type="text"/> New Piece Count <input type="text"/>	Vendor Name: ABC Rolling Mill Division: Pittsburgh, PA Country: USA Heat #: P50943858 Crew: 3.7.2 Shift: 2 Stock Qty: 144 Stock Wgt: 9,012 Lbs Material Type: Rebar	Produced Date: 05-01-2006 Receipt Date: Receipt #: Current Qty: <input type="text"/>								
	<table border="1"> <tr> <td>Size:</td> <td>Coating:</td> <td>Grade:</td> <td>Length:</td> </tr> <tr> <td>5</td> <td>Black</td> <td>60</td> <td>60-00</td> </tr> </table>		Size:	Coating:	Grade:	Length:	5	Black	60	60-00
Size:	Coating:	Grade:	Length:							
5	Black	60	60-00							
	Area/Bin: Bundle #: 5095192208									

v6.3.009

Mill - 2D Barcode Standard

Sample Data	Code	Description	Required
BCFM2D		Barcode Header	X
5095192208	n	Mill Bundle Number or Coil Number	X
ABC Rolling Mill	m	Mill	X
Pittsburgh, PA	v	Division	
USA	c	Country	X
III	u	Units of Measure (Size, Length, Weight)Metric = MMM	X
D	r	<u>D</u> eformed or <u>P</u> lain	X
S	t	<u>S</u> traight, <u>C</u> oil, or <u>R</u> od	X
5	d	Size	X
60-00	l	Length (Required for straight stock only) (fff-ii or mm)	
60	g	Grade	X
ASTM A 615	s	Specification	X
P50943858	h	Heat Number	X
2007-05-18	y	Rolling date (yyyy-mm-dd)	
3.7.2	e	Crew	
2	a	Shift	
144	q	Bundle Quantity (Required for straight stock only)	
9012	w	Bundle or Coil Weight (Lbs or Kgs)	X
E	x	Coating (<u>E</u> poxy, <u>G</u> alvanized, etc.)	
Pittsburgh Coating	f	Coating Facility	
070345890	b	Coating Batch / Powder Number	
2007-03-01	z	Coating Date (yyyy-mm-dd)	
	k	Chemistry	
C=0.39,Mn=0.96,P=0.006,S=0.029,Si=0.19,Cu=0.28,Cr=0.11,Ni=0.14,Mo=0.039,Cb=0.000,V=0.021,Sn=0.013,B=,TL=,CEq=0.57,...			
	1...9	User Fields	
	CRLF	Carriage Return Line Feed	X

Mill - 2D Barcode Standard

Notes:

- The mill barcode standard utilizes either the **PDF417** or **Data Matrix** barcode symbology.



PDF417

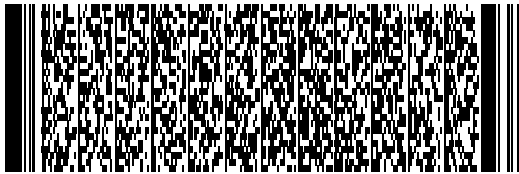


Data Matrix

- All data is represented using standard ASCII characters.
- Each barcode data field starts with a lower case letter for field identification (i.e. **a...z**) and ends with a **@** for field termination.
- The **@** character should not be used with any data fields.
- All mill barcodes begin with a recognition code **BCFM2D** which represents "Barcode Format Mill 2 Dimensional."
- All data fields are variable in length, and the order of the data fields can vary as well.
- All required data fields are marked with an **X** respectively.
- The bar size, length, and weight fields display in the barcode based on the unit of measure field **u**.
I = Imperial, **M** = Metric, and **S** = Soft Metric
- The mill division is not a required field However, if the heat number can be duplicated across multiple divisions by the same company then the division field is required to make the heat number unique by division.
- The chemistry data **k** is stored with each element separated by a comma and an **=** separating the element and value. An example of the format is as follows: **element = decimal value,element = decimal value,...** The order of the elements can vary and the decimal precision is free-form.
- Nine (i.e. **1...9**) discretionary user fields are available.

Mill - 2D Barcode Standard

Sample Barcode



PDF417



Data Matrix

BCFM2D@n5095192208@mABC Rolling Mill@vPittsburgh,PA@cUSA@uIII@rD@tS
@d5@I60-00@g60@sASTM A 615@hP50943858@y2007-03-
01@e3.7.2@a2@q144@w9012
@xE@fPittsburgh Coating@b070345890@z2007-05-18
@kC=0.39,Mn=0.96,P=0.006,S=0.029,Si=0.19,Cu,0.28,Cr=0.11,Ni=0.14,Mo=0.039,
Cb=0.000,V=0.021,Sn=0.013,B=,TL=,CEq=0.57
@CRLF