

*Data Sheet: A1.1*

## Hot strip mill product dimensions

### Hot rolled Steel Strip

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#### General description

Hot rolled steel strip produced on the hot strip mill at Mittal Steel South Africa is divided into six groups, based on similarity of strength ranges and chemical analysis. The dimensions available per product group are indicated in the accompanying graphs. Steel specifications not listed in the groups but which have similar strength levels can be assessed using the accompanying graphs.

Material is normally supplied as rolled, but material up to and including 4,8 mm thick may be ordered pickled and oiled, subject to the dimensional restrictions referred to in this data sheet.

Material may be supplied with mill edge or it can be side trimmed. Material with a thickness greater than 10 mm can be supplied as mill edge coils only.

Material of certain dimensions is temper rolled to improve shape and to prevent the incidence of coil breaks. These dimensional restrictions are indicated in this data sheet.

#### Dimensions

Due to an increase in roll forces with an increase in material strength, available dimensions will decrease on higher strength products.

For specific product limitations, refer to the relevant product data sheet and the data sheet: Hot Strip Mill Products (file Reference A1.5).

The most preferred dimensions are in the 2,5 mm to 6,0 mm thickness range and 1 100 mm to 1 600 mm width range.

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## Group 1 qualities

The following widths to thickness ratios are applicable to steels in Group 1: Low Carbon Steels

Thickness (mm)	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8-4.8	4.9-5.0	>5.0
Maximum width (mm) Hot Rolled Mill edge	1050	1225	1260	1280	1330	1400	1500	1540	1600	1700	1800	1870	1870	1870	1870	1870
Maximum width (mm) Hot Rolled Side trimmed	1015	1190	1225	1245	1295	1365	1465	1485	1565	1665	1765	1830	1830	1830	1830	1830
Minimum temper width (mm)	750	775	850	900	975	1050	1110	1195	1250	1340	1400	1475	1550			
Maximum width (mm) Pickled & Oiled Mill edge	1050	1225	1260	1280	1330	1400	1500	1540	1600	1700	1800	1830	1830	1830	1250	N/A
Maximum width (mm) Pickled & Oiled Side trimmed	1030	1205	1240	1260	1310	1380	1480	1520	1580	1680	1780	1810	1810	1810	N/A	N/A

Notes:

Max thickness for pickled and oiled (mill edge and side trimmed) is 4,8mm

Max thickness for side trimmed is 10mm

Max thickness for mill edge is 13mm

Group 1 includes the following steel specifications

- BS 1449 KHR 1            EN 10111 DD 14
- BS 1449 HR 2            EN 10111 DD 13
- BS 1449 HR 3            EN 10111 DD 12
- BS 1449 HR 4            EN 10111 DD 11
- Commercial Quality
- SAE/AISI 1006
- SAE/AISI 1008
- SUPRAFORM® HR 190
- SUPRAFORM® HR 220

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## Group 2 qualities

The following widths to thickness ratios are applicable to steels in Group 2: Medium Carbon Steels

Thickness (mm)	1.6	1.7	1.8	1.9	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3	3.1	3.2	3.3	3.4	3.5	3.6-4.0	4.1-4.6	4.7-7.9	
Maximum width (mm) Hot Rolled Mill edge	1150	1225	1250	1300	1350	1400	1500	1550	1645	1700	1725	1745	1755	1775	1800	1850	1870	1870	1870	1870	1870	1870	1870	1870
Maximum width (mm) Hot Rolled Side trimmed	1115	1190	1215	1265	1315	1365	1465	1515	1610	1665	1690	1710	1720	1740	1765	1815	1830	1830	1830	1830	1830	1830	1830	1830
Minimum temper width (mm)	750	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550						
Maximum width (mm) Pickled & Oiled Mill edge	1150	1225	1250	1300	1350	1400	1500	1550	1645	1700	1725	1745	1755	1775	1800	1800	1830	1830	1830	1830	1830	1650	1450	
Maximum width (mm) Pickled & Oiled Side trimmed	1130	1205	1230	1280	1330	1380	1480	1530	1625	1680	1705	1725	1735	1755	1780	1780	1810	1810	1810	1810	1810	1630	1430	

### Notes:

Max thickness for pickled and oiled (mill edge and side trimmed) is 4,6mm

Max thickness for side trimmed is 10mm

For thickness 8 to 23mm refer to Graph 8

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Group 2 includes the following steel specifications:

- ABS SHIP PLATE LLOYDS SHIP HULL
- API 5L X42 SANS 1350
- ASTM A285 GR C SANS 1431 GR 240 WA / WC
- ASTM A36 SANS 1431 GR 300 WA / WC
- BS 1449 HR 37/23 SAE/AISI 1010
- BS 1449 HR 43/25 SAE/AISI 1012
- BS 4360 GR 40A SAE/AISI 1018
- BS 4360 GR 43A SUPRAFORM® HR 250
- EN 10025 S235 SUPRAFORM® HR 290
- EN 10025 S275 SUPRAFORM® HR 290 (Low S 0,010)

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### Group 3 qualities

The following widths to thickness ratios are applicable to steels in Group 3: COR-TEN and High Carbon Steels

Thickness (mm)	2	2.1	2.2	2.3	2.4	2.5	2.6	2.8	3	3.2	3.4	3.5	3.6	3.8	4	4.2	4.4	4.5	4.6	4.8	5	5.2	5.4	5.6	5.8	6
Maximum width (mm) Hot Rolled Mill edge	1000	1050	1100	1150	1200	1270	1330	1400	1470	1520	1570	1600	1650	1700	1730	1750	1780	1800	1800	1800	1800	1810	1825	1840	1850	1870
Maximum width (mm) Hot Rolled Side trimmed	965	1015	1065	1115	1165	1235	1295	1365	1435	1485	1535	1565	1615	1665	1695	1715	1745	1765	1765	1765	1765	1765	1780	1795	1805	1830
Minimum temper width (mm)	750	750	750	760	775	810	850	900	930	970	1000	1050	1090	1125	1160	1200	1250	1290	1320	1360	1400	1448	1480	1520	1560	1600
Maximum width (mm) Pickled & Oiled Mill edge	1000	1050	1100	1150	1200	1270	1300	1300	1300	1300	1300	1200	1200	1200												
Maximum width (mm) P & O Side trimmed	980	1030	1080	1130	1180	1250	1280	1280	1280	1280	1280	1180	1180	1180												

**Notes:**

Max thickness for pickled and oiled (mill edge only) is 3,8mm  
 High carbon steels are not side trimmed at all  
 Thickness range 2,0 - 6,0mm for High C; 2,5 - 6mm for COR-TEN

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Group 3 includes the following steel specifications:

- COR-TEN A
- COR-TEN A-F
- WEARPLATE 200
- SAE 1055 (Cr,30)

#### Group 4 qualities

The following widths to thickness ratios are applicable to steels in Group 4: Micro Alloyed Steels

Thickness (mm)	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3	3.1	3.2	3.3	3.4	3.5
Maximum width (mm) Hot Rolled Mill edge	1000	1050	1110	1200	1250	1285	1320	1350	1380	1400	1430	1450	1485	1500	1520	1550
Maximum width (mm) Hot Rolled Side trimmed	965	1015	1075	1165	1215	1250	1285	1315	1345	1365	1395	1415	1450	1465	1485	1515
Minimum temper width (mm)	750	750	750	790	830	850	870	890	910	900	950	975	1000	1020	1040	1070
Maximum width (mm) Pickled & Oiled Mill edge	1000	1050	1110	1200	1250	1285	1320	1350	1380	1400	1400	1400	1400	1400	1400	1400
Maximum width (mm) Pickled & Oiled Side trimmed	980	1030	1090	1180	1230	1265	1300	1330	1360	1380	1380	1380	1380	1380	1380	1380
Thickness (mm)	3.6	3.7	3.8	3.9	4	4.2	4.4	4.6	4.8	5	5.2	5.4	5.6	5.8	6	6.1-7.9
Maximum width (mm) Hot Rolled Mill edge	1570	1585	1600	1625	1645	1670	1720	1750	1770	1800	1820	1840	1860	1870	1870	1870
Maximum width (mm) Hot Rolled Side trimmed	1535	1550	1565	1595	1610	1635	1685	1715	1735	1765	1775	1795	1815	1820	1820	1820
Minimum temper width (mm)	1090	1110	1130	1150	1170	1210	1250	1300	1340	1380	1425	1470	1510	1550	1600	
Maximum width (mm) Pickled & Oiled Mill edge	1400	1400	1400	1400	1400											
Maximum width (mm) Pickled & Oiled Side trimmed	1380	1380	1380	1380	1380											

Notes:

Max thickness for pickled and oiled (mill edge and side trimmed) is 4,0mm

Max thickness for side trimmed is 8mm

For thickness 8 - 16mm refer to Graph 8

Steel specifications:

- API 5L X52
- ASTM A607 GR 60
- EN 10025 S355

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- BS4360 GR 50B
  - SANS 1431 GR 350WA
  - SUPRAFORM® TM 340
  - SUPRAFORM® TM 380
  - SUPRAFORM® TM 420
  - SUPRAFORM® TM 460\*
- \*2,5 - 6MM

### Group 5 qualities

The following widths to thickness ratios are applicable to steels in Group 5

Thickness (mm)	2.5	2.7	2.9	3	3.1	3.2	3.3	3.5	3.7	3.8	3.9	4	4.1	4.2	4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.7	5.9	6 -10
Maximum width (mm) Hot Rolled Mill edge	1000	1070	1150	1225	1255	1280	1310	1340	1370	1400	1430	1440	1450	1470	1495	1520	1550	1580	1600	1625	1650	1665	1690	1720
Minimum temper width (mm)	750	750	750	780	800	835	855	880	910	945	960	980	1000	1010	1050	1070	1100	1125	1150	1175	1200			
Maximum width (mm) Pickled & Oiled Mill edge	1000	1070	1150	1225																				

Notes:

Max thickness for pickled and oiled (mill edge only) is 3,0mm

Group 5 includes the following steel specifications:

SUPRAFORM® TM4600 (6,0 - 10mm)

SUPRAFORM® TM 500 (3,0 - 4,5mm)

SUPRAFORM® TM 600 (3,0 - 8mm)

MCR 24 (2,5 - 6mm)

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## Group 8 qualities

The following widths to thickness ratios are applicable to steels 8,0mm and thicker: Applicable to Group 2, Group 4 and API 5L X65

Thickness (mm)	8	9	10	11	12	13	14	15	16	17	18	19	20
Group 2; Maximum width (mm) Hot Rolled Mill edge	1870	1870	1870	1870	1870	1850	1850	1850	1850	1850	1850	1850	1850
Group 2; Maximum width (mm) Hot Rolled Side Trimmed	1830	1830	1830										
Group 4; Maximum width (mm) Hot Rolled Mill edge	1870	1870	1850	1800	1775	1750	1725	1700	1675				
Group 4; Maximum width (mm) Hot Rolled Side Trimmed	1830	1830	1830										
API 5L X65; Maximum width (mm) Hot Rolled Mill edge (No Side Trim)	1775	1750	1725	1700	1675	1650							

Max side trim thickness for Group 2 = 10mm and Group 4 = 8mm  
For thickness above, test piece to be flame cut as material cannot be rewound.

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