

# GENWEST

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## GENWEST STEEL & INDUSTRIAL SERVICES (PTY) LTD

ABREVIATED SPECIFICATION GUIDE TO STRUCTURAL,  
PRESSURE VESSEL & WEAR RESISTANT STEEL PLATE

TÜV ISO 9001 Quality Management Certified



Material Grade	EN 10025 S235 series (1993) EN 10025 FE 360 (1990) DIN 17100 ST 37-2 BS 4360 Gr 40 A	EN 10025 S 275 series (1993) EN 10025 FE 430 (1990) BS 4360 Gr 43A SABS 1431 Gr 300WA DIN 17100 ST 44-2 ASME A36	EN 10025 S 355 series (1993) EN 10025 FE 510 (1990) BS 4360 Gr 50B/C/D SABS 1431 Gr 350WA/C/D DIN 17100 ST 52-3	Roq-Tuf AM700, WELDOX 700@ Astm 514 / 517 T1 (Several equivalents available)
Nominal thickness (t)(mm)	4.5 - 150	5 - 300***	5 - 300***	4 - 150*
BHN Hardness	± 120	± 130	± 140	± 290
Tensile strength (Mpa)	340 - 510*	430 - 580*	490 - 640*	780 - 930*
Yield strength (Mpa)	235 min*	275 min* 300 min* 275 min* 275 min*	350min*	700*
Minimum Elongation	22*	20*	18*	14 - 18
Impact strength(J)	27 @ +20°C	27 @ +20°C	27 @ 0°C	27 @ -50°C (depending on grade )
Bend radius	1 - 25 t **	3 t min**	3 t min**	As per mill specification
Mill certificate	Mandatory	Mandatory	Mandatory	Mandatory
Weldability	Excellent	Excellent	Excellent	As per mill specification ( very good weldability )
Comments	Structural steel- General purpose Good formability	Structural steel general purpose Good formability Readily available	Higher strength structural good impact values - even better when normalised.	High strength allows for mass savings in design. Very good cold forming properties.

Material Grade	EN 10028 P 265 series ASME A 516 Gr. 60	EN 10028 P 295 series	EN 10028 P 355 series ASME A 516 Gr. 70	Wearplate 200 Bennox SS10/200
Nominal thickness (t)(mm)	6 – 80	8 – 50	See data sheet	5 - 50
BHN Hardness	370 min	470 min 540 max	485 min 620 max	± 200
Tensile strength (Mpa)	N/A	N/A	See data sheet	650 – 780 Not measured or guaranteed
Yield strength (Mpa)	1000	1000		420 – 530 Not measured or guaranteed*
Minimum Elongation	14 - 18	14 - 18		14 Not measured or guaranteed
Impact strength(J)	27 @ -40°C (depending on grade )	20 @ -40°C	See data sheet	
Bend radius	As per mill	As per mill specification	As per mill specification	12 t
Mill certificate	Mandatory	Mandatory	Mandatory	Mandatory (Analysis only)
Weldability	As per mill specification ( very good weldability )	As per mill specification ( very good weldability )	As per mill specification ( very good weldability )	Use proper weld procedure (Poor weld ability)
Comments	Specifications as per Data cold forming properties.	Specifications as per Data Sheets	Specifications as per Data Sheets	Very old generation wear plate Also consider quenched wear plat, 400bhn e.g. for improved results (High Carbon Content)

Material Grade	Wear resistant plate 400 BHN Mill of origin - Europe	Wear resistant plate 450 BHN Mill of origin - Europe	Wear resistant plate 500 BHN Mill of origin - Europe	Full range Chromium Carbide overlay products
Nominal thickness (t)(mm)	6 - 130	6 - 100	6 - 80	6/6 - 19/10
BHN Hardness	370 min 430 max	425 min 475 max	470 min 530 max	
Tensile strength (Mpa)	1250	1400	N/A	N/A
Yield strength (Mpa)	1000	1200	N/A	N/A
Minimum Elongation	10 - 16 %	10	N/A	
Impact strength(J)	40 @ -40°C	35 @ -40°C	30 @ -40°C	N/A
Bend radius	As per mill specification	As per mill specification	As per mill	
Mill certificate	Mandatory	Mandatory	Mandatory	Data on the full range is available on request. Full technical support in the application of this material is also available as well as other specialized hadfacing welding technology and welding consumables and products
Weldability	As per mill specification ( very good weldability )	As per mill specification ( very good weldability )	As per mill specification	
Comments	High abrasion resistance good impact resistance, & good cold bending properties.	Higher wear resistance in combination with good cold forming properties.	Intended for applications where very high wear resistance is required	Wide range of extreme wear applications