

BISPLATE® 80PV

BISPLATE® 80PV is a high strength steel alternative for designers of unfired pressure vessels that meets the requirements of AS1210 and achieves a light weight structure.

APPLICATIONS

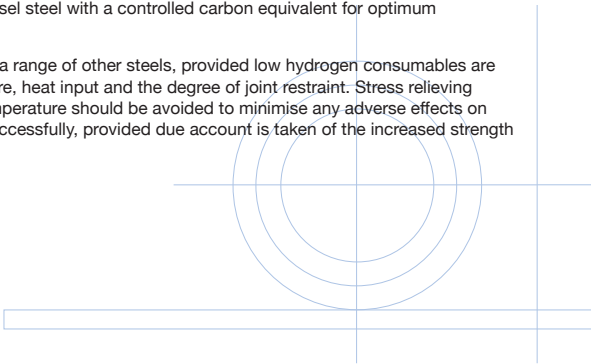
BISPLATE® 80PV has been approved by statutory authorities and complies with the requirements of AS1210 for pressure applications and is supplied ultrasonically tested to AS1710-Level 1. Its high strength offers substantial weight reductions in the following areas:

- Transportable road tankers
- Storage tanks *(Spherical and cylindrical)*
- Railroad tankers *(LPG/Liquid ammonia)*
- Refinery and petrochemical equipment *(Tube plates/Channel covers)*

FABRICATION

BISPLATE® 80PV is a high strength, low alloy pressure vessel steel with a controlled carbon equivalent for optimum weldability.

BISPLATE® 80PV can be successfully welded to itself and a range of other steels, provided low hydrogen consumables are used and attention is paid to preheat, interpass temperature, heat input and the degree of joint restraint. Stress relieving can be achieved at 540°C – 570°C. Heating above this temperature should be avoided to minimise any adverse effects on mechanical properties. Cold forming can be conducted successfully, provided due account is taken of the increased strength of the steel.



BISPLATE® 80PV

MECHANICAL PROPERTIES

PROPERTIES	SPECIFICATION	TYPICAL
0.2% Proof Stress	690 MPa (Min)*	750 MPa
Tensile Strength	790 - 930 MPa*	830 MPa
Elongation in 50mm G.L.	18% (Min)*	26%
Lateral Expansion	0.38mm (Min)	0.70mm
Charpy Impact	-	55J
Hardness	-	255HB

*Dependant on plate thickness.

CHEMICAL COMPOSITION

THICKNESS (mm)		C	P	Mn	Si	S	Cr	Mo	B	CE(IIW)*	CET*
≥6 - 80	Maximum	0.20	0.025	1.5	0.25	0.008	0.30	0.25	0.002	0.50	0.35
>80 - 100	Maximum	0.18	0.025	1.5	0.25	0.008	1.20	0.25	0.002	0.58	0.34

*Low heat input butt welding required to ensure transverse weld tensile properties are achieved. Alternate chemistry may be specified when necessary.

*Typical Average