




Precast concrete panels with steel or polymeric tie-back strips used for the construction of reinforced soil walls, bridge abutment and mine tip walls.

PANEL SHAPE				
		T-SHAPED	RECTANGULAR	CRUCIFORM
Location		Standard	Bottom	Top
				
PHYSICAL PROPERTIES				
Facial Dimensions				
- Top	mm	2100 x 785	2100 x 785	1820 x 785
- Middle	mm	-	-	2100 x 785
- Bottom	mm	1820 x 785	-	1820 x 785
Thickness	mm	160	160	160
Effective Wall Area	m ²	3,2	1,6	4,8
Minimum Number of Connections	No.	4	2	6
Reinforcement				
50T Panel				
- Steel	kg	18,86	9,63	28,08
- Diameter	mm	8	8	8
- Spacing	mm	160	160	160
100T Panel				
- Steel	kg	26,70	13,65	-
- Diameter	mm	8	8	8
- Spacing	mm	100	100	100
Steel Grade		Characteristic Strength of 460N/mm ² (High Yield Steel BS4449:1997)		
Concrete Grade		Shall not be less than 30MPa at the end of 28 days		
Precast concrete facing units must be designed to conform to the requirements of DETR, HA Technical Standard BD 24 The design of Concrete Highway Bridges and Structures, use of BS 5400: Part 4: 1990 (DMRB 1.3.1) and BD 57 Design for Durability (DMRB 1.3.7)				

DESCRIPTION	50T PANEL		100T PANEL	
Toggle	High Carbon Steel to BS EN 10025:1993, Grade S355JR			
Diameter	mm	25	32	
Galvanising	g/m ²	1000	1000	
	microns	140	140	
Loops	Mild Steel to BS 4449: 1997, Grade 250			
Diameter	mm	12	12	
Galvanising	g/m ²	1000	1000	
	microns	140	140	
PVC Pipe				
Length	mm	780	780	
Diameter (OD)	mm	30	30	
No. per Panel	No.	1	1	
Dowel Bars				
Length	mm	250	250	
Diameter (OD)	mm	20	20	
No. per Panel	No.	1	1	
I-Bolt	Mild Steel, Head shall be made of hot / cold forging			
Length	mm	85	85	
Head Diameter	mm	20 or 30	20 or 30	

Item No	Description	Unit	Quantity	Rate	Amount (R)
1	MACFORCE PRECAST CONCRETE PANELS (25MPa) (Including delivery).	m ²			
2	Paraweb reinforcing strips.	m			
3	Excavation for footing of MacForce				
3.1	- Soft material	m ³			
3.2	- Hard material	m ³			
4	Concrete footing for Walls.	m ³			
5	Erection of Cladding Panels.	m ²			
6	Structural fill (rate to include for procuring, transporting, backfilling, levelling and compacting to 95% Mod AASHTO).	m ³			
7	AG 300 Geotextile.	m ²			
8	Steel mesh for concrete panels.	kg			

Bill of Quantities