



Arkdeck 50.250.1000: 19-a-Ark-Prod-03_2015

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Profile dimensions	<p>Colour side 1000mm cover width</p>							
DA								
Cover width								
Depth								
Pitch								
Colour side	<p>Colour side 1000mm cover width</p> <p>A = to top side / broad flat</p> <p>B = to underside / narrow flat</p>							
A = to top side B = to underside								
Material	<p>S320 GD+Z275/MZ150: EN 10326. Plain galvanised finish.</p> <p>S320 GD+Z275/MZ150: EN 10326. 15micron RAL9010 polyester bright white and RAL9002 grey/white finishes.</p> <p>25micron polyester, Colorcoat HPS200 Ultra® and aluminium available to special order.</p>							
Section properties		Weight	Broad flange in compression		Narrow flange in compression		Reaction, Shear	
	t_N mm	kg/m ²	$M_{c,Rk,F}$ (kNm/m)	I_{eff} (cm ⁴ /m)	$M_{c,Rk,F}$ (kNm/m)	I_{eff} (cm ⁴ /m)	$R_{w,Rk,B}$ (kN/m)	$V_{w,Rk}$ (kN/m)
	0.75	7.36	2.42	22.57	2.59	29.58	19.15	45.86
	0.88	8.64	3.10	28.10	3.27	36.79	25.88	64.19
	1.00	9.81	3.79	33.47	3.94	43.74	32.84	80.79
	1.25	12.27	5.40	45.33	5.43	57.89	49.58	101.79
	1.5							

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Structural:	t _N mm	2.0m	2.2m	2.4m	2.6m	2.8m	3.0m	3.2m	3.4m	3.6m
Single spans Positive (gravity) loads kN/m ² L/200	0.75	2.27	1.71	1.32	1.04					
	0.88	2.83	2.13	1.64	1.29	1.03				
	1.00	3.37	2.53	1.95	1.54	1.23				
	1.25	4.57	3.43	2.64	2.08	1.67	1.35	1.12		
	1.5									
Structural: Single spans negative (wind uplift) loads kN/m ² L/150	t _N mm	2.0m	2.2m	2.4m	2.6m	2.8m	3.0m	3.2m	3.4m	3.6m
	0.75	3.46	2.86	2.30	1.81	1.45	1.18			
	0.88	4.36	3.61	2.86	2.25	1.80	1.46	1.21	1.01	
	1.00	5.25	4.34	3.40	2.68	2.14	1.74	1.44	1.20	1.01
	1.25	7.24	5.85	4.50	3.54	2.84	2.31	1.90	1.58	1.33
1.5										
Structural: Double spans positive (gravity) loads kN/m ² L/200	t _N mm	2.0m	2.2m	2.4m	2.6m	2.8m	3.0m	3.2m	3.4m	3.6m
	0.75	3.23	2.67	2.24	1.91	1.65	1.43	1.26	1.12	
	0.88	4.14	3.42	2.87	2.45	2.11	1.84	1.62	1.41	1.18
	1.00	5.06	4.18	3.51	2.99	2.58	2.25	1.98	1.67	1.41
	1.25	7.21	5.95	5.00	4.26	3.68	3.20	2.72	2.27	1.91
1.5										
Structural: Double spans negative (wind uplift) loads kN/m ² L/150	t _N mm	2.0m	2.2m	2.4m	2.6m	2.8m	3.0m	3.2m	3.4m	3.6m
	0.75	3.23	2.67	2.24	1.91	1.65	1.43	1.26	1.12	
	0.88	4.14	3.42	2.87	2.45	2.11	1.84	1.62	1.43	1.28
	1.00	5.06	4.18	3.51	2.99	2.58	2.25	1.98	1.75	1.56
	1.25	7.21	5.95	5.00	4.26	3.68	3.20	2.81	2.49	2.22
1.5										
Structural: Triple spans positive (gravity) loads kN/m ² L/200	t _N mm	2.0m	2.2m	2.4m	2.6m	2.8m	3.0m	3.2m	3.4m	3.6m
	0.75	3.26	2.80	2.43	1.99	1.59	1.30	1.07		
	0.88	4.24	3.63	3.15	2.48	1.99	1.61	1.33	1.11	
	1.00	5.23	4.47	3.75	2.95	2.36	1.92	1.58	1.32	1.11
	1.25	7.47	6.37	5.09	4.00	3.20	2.60	2.15	1.79	1.51
1.5										
Structural: Triple spans negative (wind uplift) loads kN/m ² L/150	t _N mm	2.0m	2.2m	2.4m	2.6m	2.8m	3.0m	3.2m	3.4m	3.6m
	0.75	4.04	3.34	2.80	2.39	2.06	1.79	1.58	1.40	1.25
	0.88	5.17	4.27	3.59	3.06	2.64	2.30	2.02	1.79	1.60
	1.00	6.32	5.22	4.39	3.74	3.23	2.81	2.47	2.19	1.94
	1.25	9.01	7.44	6.25	5.33	4.60	4.00	3.52	3.05	2.57
1.5										

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Fire properties	Class 0 or 'low risk' internal surface spread of flame as defined in the national Building Regulations. Reaction to fire classification A1 to BS EN 13501-1	
Load/span table criteria	End bearing >40mm, intermediate > 60mm. Loads in kN/m ² , including a load factor of 1.5. Table excludes profile self weight. Deflection limits L/200 for positive loads, L/150 for negative (wind) loads.	
Curve options	Along profile: n/a. Across profile nominally 2m, site formed.	
Fastener types	Primary: Carbon steel or A2 stainless steel 5.5mm Ø, 16mm Ø sealer washer. Stitchers: Carbon steel or A2 stainless steel 5.5mm or 6.3mm Ø, 16mm Ø sealer washer, or rivets, as specified by the architect.	
Fastener frequency	End laps (100mm minimum)- 1No/trough minimum, 2No if required by calculations. Edge distance minimum 30mm. Side laps- 450mm nominal centres unless calculations require otherwise (diaphragm).	
Sealants	The air barrier and vapour control are provided by the vcl membrane. Deck laps are normally unsealed. Filler blocks bedded in sealant must be used. Web perforated deck will require filler blocks bedded in sealant to the underside and topside to continue the air barrier/ vapour seal. Particular attention should be paid to internal compartment walls and avoiding sound and air flanking due to the web perforations.	
Size/ weight/handling	Max pack weight 2.5t. Smaller pack weights on request, but note that this may affect haulage costs. Minimum sheet size 1.5m, max 13.2m. Packs labeled and banded to timber framing. Plain galvanised profiles should be protected from damp and condensation while in the pack to avoid white rust.	
Colour side and orientation	The standard colour side is referred to as side B and is the underside of the profile as seen in the diagrams. Note that profiles are generally supplied inverted with the colour side uppermost to protect from scratching during positioning on site. Profiles have to be inverted before installation	
Acoustics	Profiles marked "perfo" are available with perforations to the mid section of the web of the profile. With tissue faced acoustic batts set within the trough of the deck, the web perforations allow the deck to provide sound absorption. R5T12.5:15% and R5T8:35% web or broad flat perforation patterns available subject to profile and production factory.	
Reference Standards	BS EN 1991-1-3, BS EN 10143 BS EN 10346, BS EN 1990 BS EN 1993-1-3, BS EN 1993-1-5	BS EN 1991-1-6, BS EN 1991-1-3 BS EN 1991-1-5, BS EN 508-1:2000