Ark Profiles Ltd: Product Data Sheet

Arkdeck 32.200.1000: 04-a-Ark-Prod-03/2015

Profile dimensions

GBBM

Cover width

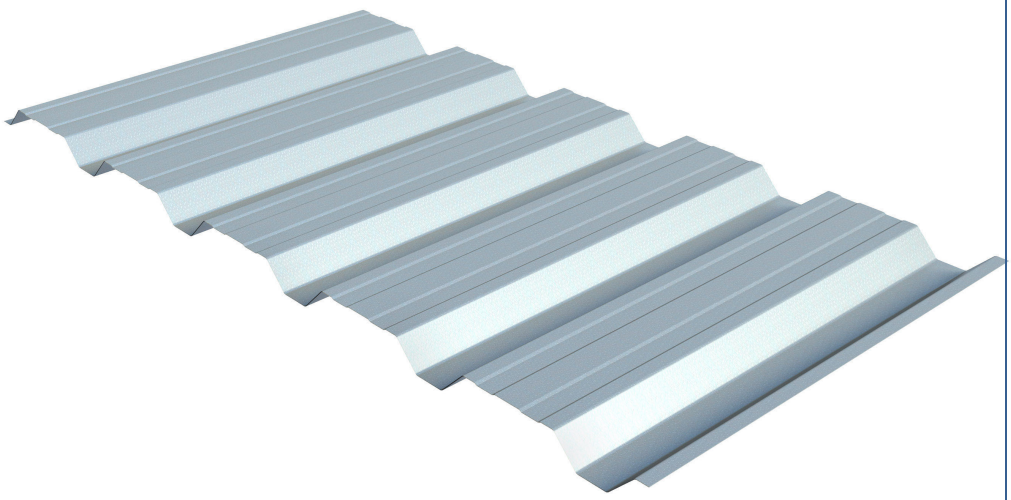
1000mm

Depth

32mm

Pitch

200mm



Colour side

A = to top side

B = to underside

Colour side

A = to top side/ broad flat

B = to underside/ narrow flat

Profile dimensions	Cover width: 1000mm	Depth: 32mm	Pitch: 200mm
Material	0.70 plain: Plain galvanised steel, S280GD+Z275/MZ150/ZA100: EN 10326. Plain galvanised finish. 0.70 RAL9010: RAL9010 galvanised steel, S220GD+Z275/MZ150/ZA100: EN 10326. 15micron RAL9010 polyester bright white finish.		
CE reference	Ark.DoP.011, 012: BS EN 14782		

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)
0.70 RAL9010	6.9	1.116	9.379	1.035	9.267	9.202	33.78
0.70 plain	6.9	1.405	9.021	1.26	8.964	10.381	42.993

Structural: Single spans Positive (gravity) loads kN/m^2

t_N mm	1.0m	1.2m	1.4m	1.6m	1.8m	2.0m	2.2m	2.4m	2.6m
0.70 RAL9010	5.95	4.13	2.81	*	*	*	*	*	*
0.70 plain	6.92	4.35	2.74	1.84	1.29	*	*	*	*

Structural: Single spans negative (wind uplift) loads kN/m^2

t_N mm	1.0m	1.2m	1.4m	1.6m	1.8m	2.0m	2.2m	2.4m	2.6m
0.70 RAL9010	5.52	3.83	2.82	*	*	*	*	*	*
0.70 plain	6.72	4.67	3.43	2.44	1.71	*	*	*	*

CE

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Structural: Double spans positive (gravity) loads kN/m^2	t_N mm	1.0m	1.2m	1.4m	1.6m	1.8m	2.0m	2.2m	2.4m	2.6m
	0.70 RAL9010	3.25	2.47	1.95	1.58	1.31	*	*	*	*
	0.70 plain	3.79	2.90	2.30	1.87	1.55	1.31	1.12	*	*
Structural: Double spans negative (wind uplift) loads kN/m^2	t_N mm	1.0m	1.2m	1.4m	1.6m	1.8m	2.0m	2.2m	2.4m	2.6m
	0.70 RAL9010	5.95	4.13	3.04	2.33	1.84	*	*	*	*
	0.70 plain	7.49	5.2	3.82	2.93	2.31	1.87	1.55	*	*
Structural: Triple spans positive (gravity) loads kN/m^2	t_N mm	1.0m	1.2m	1.4m	1.6m	1.8m	2.0m	2.2m	2.4m	2.6m
	0.70 RAL9010	3.86	2.95	2.34	1.9	1.58	*	*	*	*
	0.70 plain	4.5	3.45	2.74	2.24	1.86	1.57	1.18	0.91	*
Structural: Triple spans negative (wind uplift) loads kN/m^2	t_N mm	1.0m	1.2m	1.4m	1.6m	1.8m	2.0m	2.2m	2.4m	2.6m
	0.70 RAL9010	7.44	5.17	3.80	2.91	2.30	*	*	*	*
	0.70 plain	9.37	6.50	4.78	3.66	2.85	2.08	1.56	1.20	*

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. * indicates limit by 2kN/m construction line load.	
Curve options	Along profile: n/a. Across profile nominally 2m, site formed.	
Fastener types	Primary: Carbon steel or A2 stainless steel 5.5mm ∅, 16mm ∅ sealer washer. Stitchers: Carbon steel or A2 stainless steel 5.5mm or 6.3mm ∅, 16mm ∅ 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 vcl are provided by the vcl membrane. Deck laps are unsealed. Filler blocks bedded in sealant must be used. Web perforated deck will require filler blocks bedded in sealant to the underside and topside.	
Size/ weight	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. Plain galvanised profiles should be protected from damp and condensation while in the pack to avoid white rust.	
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

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