Ark Profiles Ltd: Profile Data Sheet



			499							
Profile depth	65mm	Profile w	idth	4	400mm					
Weight: kg/m2	0.9mm AL = 3.6	Non Frag ACR[M]0		(Class B					
Material	0.9mm stucco a 0.9mm alumini					nd PVdF fin	shes on enqu	iry		
Durability	Paint finish		Lif	e expectancy	vears	Agre	Agrement references			
zurubiney				and	coastal	1.0.				
	Plain stucco			40						
	ARS 4				40	196	1964ps3, 2922ps3			
	PVdF 4				40		1964ps2, 2922ps2			
	A paint finish may retain a good appearance for a shorter period in severe or coastal locations than those indicated in the table, refer to the Agrement certification for detail.									
CE references	Ark.DoP.001, 002, 003: BS EN 14782									
Section properties	Thickness	hickness Weight Rib in			Pan in com	npression	Reaction	Detachment		
	t _N mm	kg/m ²	M _{c,Rk,F} (kNm/m)	l _{eff}	M _{c,Rk,F} (kNm/m)	I _{eff} (cm ⁴ /m)	R _{w,Rk,B} (kN/m)	(kN/m)		
	0.9 AL	3.62	1.376	44.617	1.165	19.248	11.837	6.872		



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Structural: positive/gravity loads: variable loads factor 1.5, deflection L/200. Multi spans	Span	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
		m	m	m	m	m	m	m	m	m	m	m
	Load: kN/m ²	4.66	4.04	3.54	3.13	2.79	2.51	2.26	2.05	1.87	1.71	1.57
Structural: negative/uplift loads: variable loads factor 1.5, attachment load factor 2.0, deflection L/150. Multi spans.	Span	1.0 m	1.1 m	1.2 m	1.3 m	1.4 m	1.5 m	1.6 m	1.7 m	1.8 m	1.9 m	2.0 m
	Load: kN/m ²	3.12	2.84	2.60	2.40	2.23	2.08	1.95	1.84	1.74	1.64	1.56
Fire properties	Reaction to fire: EN14782:06:5.1.2: Class A1 External fire performance: EN14782:06:5.1.2: Class Broof (t1), Class Broof (t2) Class Broof (t3) and Class Broof (t4)											
Curve options	Natural curve to 40m minimum radius. Crimp curve to 1m minimum radius											
Gauging	Straight sheets: 400mm, factory curved sheets: 400mm, site curved sheets: 405mm											
Fastener types	Primary: 140mm halter with 2No A2 stainless steel 5.5mm \varnothing fasteners. End distances 100mm-300mm (sheet end to halter centre line).											
Fastener frequency	Halters at every rib, every spacer/purlin. Side laps, mechanically seamed, no sealant Fixed point at one position within sheet length.											
Installation key requirements	Refer to Arkzip installation guidelines- datasheet 31 and 32 Halter brackets have 2No 304 grade stainless steel fasteners plus an isolating EPDM seal. Isolate aluminium from galvanised steel Arkzip requires a single fixed point per sheet, normally at the ridge or crown of a curved roof. Zip sheets as laid. Increase halter gauge by 5mm for natural curve sheets (Note impact on module if rooflights to be installed) Set zipping tool to 20mm rib top diameter Use stainless steel tooling for stucco, nylon for painted finishes. Close ribs by hand pliers at each sheet end before zipping. Protect pre-painted sheet finishes with a rib cloth Walk on Arkzip ribs Use Arkzip ridge/ eaves and verge detailing and components. Allow 1.2xLmm, min 20mm gap at eaves stiffener angle. Turn sheets down at eaves at pitches < 10°											
Reference/ Standards	Structural performance – Oxford Brookes University assessment 2015. BS EN 508-2:2000 BS EN 14782 BS EN 485 BS 5427:96											



