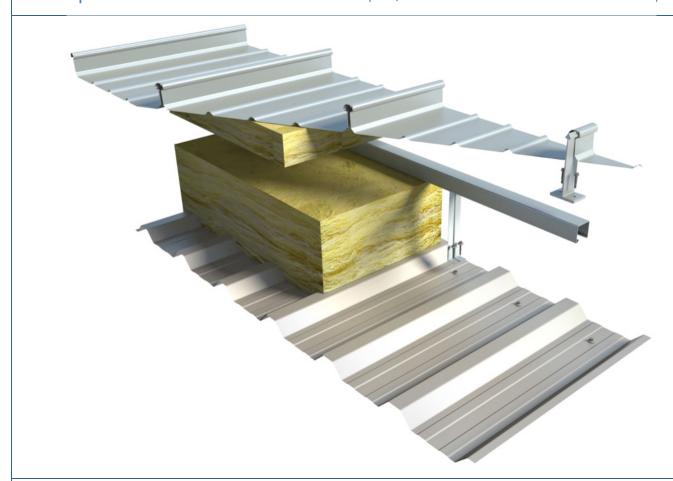


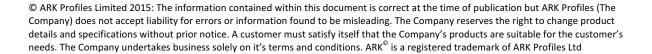
ARK®zip 65mm - twin skin - roof: 08-d-ARK-Sys-03/2017

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Δ	Rk	(®zin	65mm	- system	constri	ıction
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Outer profile	ARKzip 65.400 and 65.435 in 0.9mm aluminium and 0.7mm steel. Refer to ARK product data
Outer profile	·
	sheet 09-ARK-Prod-ARKzip 65.400
Insulation	Glass or rock mineral wool quilt to BS EN 13162 and BS3533:1981, non-combustible
	Euroclass A1 to BS EN ISO 13501-1
	Thickness as System Performance table below, based upon 1.5m average spans and spacer
	brackets at 1m centres.
Spacer	80mm (standard) or 140mm (check availability) aluminium halter with bracket and rail
	spacer system. 1.5mm galvanised steel brackets to depth as System Performance table
	below, max spacing 1m. 1.25mm galvanised steel rail, interlocking end joints, bracket
	stability braces at 20m max spacing on brackets of 250mm and above. Note- check
	availability of 140mm halters.
VCL and air barrier	Generally formed by the steel liner in building humidity classes 1-4. Additional 250gsm
	reinforced polyethylene membrane vcl optional where specified for complicated roof plans.
	Increase spacer bracket by 30mm when a membrane vcl is included.
	·







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U value	W/m ² K	0.24	0.23	0.22	0.21	0.20	0.19	0.18	0.17
Spacer depth	mm	170	180	190	200	210	220	230	240
Insulation roll size	mm	210	220	240	250	260	270	280	290
Compressed insulation depth/ cavity depth	mm	190	200	210	220	230	240	250	260
nsulation lambda value	W/mK	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.04
Depth of roof	mm	255	265	275	285	295	305	325	335
Weight of roof (0.9mm AL)	kg/m ²	13.6	13.7	14.0	14.1	14.2	14.3	14.4	14.
Weight of roof (0.7mm steel)	kg/m ²	17.8	18.0	18.2	18.3	18.4	18.6	18.7	18.
Bracket brace required?		No	No	No	No	No	No	No	No
J value	W/m ² K	0.16	0.15	0.14	0.13	0.12	0.11		
	W/m ² K	0.16	0.15	0.14	0.13	0.12	0.11		
Spacer depth	,								
Spacer depth nsulation roll size	mm	260	280	280	300	330	360		
Spacer depth nsulation roll size Compressed insulation depth/ cavity depth	mm	260 310	280	280	300 360	330 390	360 420		
Spacer depth nsulation roll size Compressed insulation depth/ cavity depth nsulation lambda value	mm mm	260 310 280	280 330 300	280 330 300	300 360 320	330 390 350	360 420 380		
Spacer depth Insulation roll size Compressed insulation depth/ cavity depth Insulation lambda value Depth of roof	mm mm mm W/mK	260 310 280 0.040	330 300 0.040	280 330 300 0.037	300 360 320 0.037	330 390 350 0.037	360 420 380 0.037		
J value Spacer depth Insulation roll size Compressed insulation depth/ cavity depth Insulation lambda value Depth of roof Weight of roof (0.9mm AL) Weight of roof (0.7mm steel)	mm mm mm W/mK	260 310 280 0.040 345	280 330 300 0.040 365	280 330 300 0.037 365	300 360 320 0.037 385	330 390 350 0.037 415	360 420 380 0.037 445		





ARK®zip 65mm - twin skin - roof: 08-d-ARK-Sys-03/2017 p 3 of 5									
ARK®zip 65mm - system performance data: 140mm (check availability) halter									
U value	W/m2K	0.25	0.23	0.22	0.21	0.20	0.19	0.18	0.17
Spacer depth	mm	110	120	130	140	150	160	180	190
Insulation roll size	mm	210	220	240	250	260	270	290	300
Compressed insulation depth/ cavity depth	mm	190	200	210	220	230	240	260	270
Insulation lambda value	W/mK	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040
Depth of roof	mm	255	265	275	285	295	305	325	335
Weight of roof (0.9mm AL)	kg/m2	13.6	13.8	14.0	14.1	14.2	14.4	14.6	14.7
Weight of roof (0.7mm steel)	kg/m2	18.0	18.1	18.4	18.5	18.6	18.7	19.0	19.1
Bracket brace required?		No							

U value	W/m2K	0.16	0.15	0.14	0.13	0.12	0.11
Spacer depth	mm	210	220	220	220	240	290
Insulation roll size	mm	320	330	330	330	360	410
Compressed insulation depth/ cavity depth	mm	290	300	300	300	320	370
Insulation lambda value	W/mK	0.040	0.040	0.037	0.032	0.032	0.032
Depth of roof	mm	355	365	365	365	385	435
Weight of roof (0.9mm AL)	kg/m2	15.0	15.1	16.4	21.7	22.6	24.2
Weight of roof (0.7mm steel)	kg/m2	19.3	19.5	20.8	26.1	27.0	28.6
Bracket brace required?		No	No	No	No	No	Yes





ARK®zip 65	mm - twin skin - roof: 08-d-ARK-Sys-03/2017 p 4 of 5
ARK®zip 65	mm - system data
Non-fragility	Non Fragile Class B to ACR[M]001. Refer also to ARK product data sheet 02-ARK-Prod ARKliner
Fire properties	Insulation is EuroClass A1 to BS EN ISO 13501-1, non combustible Liner Class O, Topsheet Class AA to National Standards (Refer to ARK product data sheets 09-ARK-Prod and 02-ARK-Prod)
Minimum pitch	Nominal 1.5°.
Acoustics	Typical twin skin systems, glass quilt insulation > 180mm, nominal Rw values 40dB for aluminium ARKzip and Rw=46dB for steel ARKzip (computer modelled values)
Guarantees and	ARK Silver and ARK Gold.
Warranties	Refer to ARK technical data sheet 05-ARK-Tech "Warranties and guarantees"
Curve options	Natural curve to 40m minimum radius. Factory curve radius is profile and material dependent, consult ARK.
Fasteners, sealants	Refer to ARK product data sheets 09-ARK-Prod-ARKzip 65.400&435 and 02-ARK-Prod-ARKliner
Airtightness	ARKzip systems with sealed liners are inherently airtight and contribute to low building air leakage rates. The liner is the air barrier and vapour control layer and has sealed fasteners, sealed side and end laps and robust sealing at eaves, ridge and verge. Penetrations (SVP etc) must be sealed into the liner as well as into the outer sheet. Where a membrane vcl is used in addition, it must also be sealed as above
Installation key	Insulation must be dry when covered by the outer sheet.
requirements	Insulation must fill the insulation cavity with minimal gaps around the spacer
	Fasteners for liner and spacer brackets are carbon steel self drillers and must have 15/16mm diameter sealed washers
	Liner fixings are in every trough at end laps, ridges and eaves, alternate troughs at intermediate purlins.
	Exposed fasteners are 304 grade stainless steel with coloured heads and 16mm diameter sealer washers, or aluminium rivets.
	Spacer brackets must have 2 fasteners per bracket.
	Halter brackets have 2No 304 grade stainless steel fasteners plus an isolating EPDM seal. Spacer brackets max 300mm from joggle joint
	Isolate aluminium from galvanised steel Liners must be sealed all round, including fillers bedded in sealant
	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
	Close ribs by hand pliers at each sheet end before zipping.
	Protect pre-painted sheet finishes with a rib cloth Walk on ARKzip ribs





ARK®zip 65	bmm - twin skin - roof: 08-d-ARK-Sys-03/2017 p 5 of 5
ARK®zip 65	5mm - system data
Rooflights	In-plane and barrel vault site assembled triple skin GRP rooflight. Note- applies only to 65.400 profile for module to match liner at 400mm cover width 2.4kg/m2 inner and outer GRP, 4 wall polycarbonate internal layer, Class B non-fragility, U=1.3W/m²K Partner company Brett Martin Daylight Systems, www.daylightsystems.com
Insulation	Earthwool Ecose FactoryClad 40/37/32 glass mineral wool quilt to BS EN 13162BS and BS3533:1981, non-combustible Euroclass A1 to BS EN ISO 13501-1 Partner company Knauf Insulation Ltd, www.knaufinsulation.co.uk
Roof safety systems	Partner company Latchways plc, www.latchways.com Partner company QBM Distributors Ltd, www.qbmdistributors.co.uk
Fasteners	Partner company EJOT UK Ltd, www.ejot.co.uk Partner company SFS intec Ltd, www.sfsintec.biz/uk Partner company QBM Distributors Ltd, www.qbmdistributors.co.uk
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