

Cladding / wall Panel

Armatherm cladding attachments significantly improve wall assembly thermal performance. Armatherm FRR Z Girt, clip and thermal break shims provide a combination of low thermal conductivity and high compressive strength transferring load and reducing heat loss. The material is made of a reinforced, thermoset resin that is fire resistant and exhibits very limited creep under load, making it the ideal material for use in structural and façade thermal break connections.

Continuous exterior insulation is almost always compromised by metallic structural connections such as clips and girts which create a thermal bridge when connected to steel stud framing. These connections in conjunction with the steel studs have a significant impact on the U value of wall assemblies. Insulation effectiveness can be reduced by as much as 50% due to these heat flow paths. Armatherm™ Z GIRTs improve the U value of cladding and wall panel assemblies by eliminating the use of highly conductive metal girts and aluminum brackets creating wall assemblies that are up to 98% efficient.

~~To determine the effectiveness of the Armatherm Z girt, the same wall assemblies were evaluated, substituting Armatherm non-conductive Z girts for the steel girts. The vertical and horizontal girt orientations were compared and the results are shown below.~~

Exterior Insulation R Value (RSI)	Assembly effective R Value (RSI)	
	Steel Girts Exterior Insulation Only	Armatherm Girts Exterior Insulation Only
R 10 (1.76)	9.4 (1.65)	13 (2.28)
R 15 (2.64)	11.4 (2.00)	17.5 (3.07)
R 20 (3.50)	13.1 (2.30)	22.2 (3.89)