

Liquid Applied Insulation Coating

Resimac has developed a coating that can be applied to hot surfaces to protect facility engineers from hot surfaces (potential burns) and to reduce heat loss on bare steel pipes operating at elevated temperatures.

Resichem 561 Thermal Barrier is a two pack solvent free epoxy coating that can be applied by brush or standard airless spray and depending on the surface temperature can be applied in 3 or 4 coats.

Once cured the material can reduce surfaces temperatures by 60% and heat loss by 40%.

561 Thermal Barrier.....

Two pack solvent free

Epoxy based material

High build coating

Suitable for application to mechanically prepared surfaces

High temperature resistance (200°C)

Independently tested to ISO 8301

Easy to use and apply

Protects facility staff from burns

Reduces heat loss on bare steel pipes

Eradicates the use of caging on pipes and process equipment

Proven to reduce surface temperatures from 180°C to below 60°C

Surface Touch Temperature Reduction Guide.....

Below is a guide on what surface temperatures can be achieved by applying 4mm of 561 Thermal Barrier onto hot metallic surfaces

Coating Thickness	Metallic Surface Temp	Coating Temp
4mm	100°C	38°C
4mm	120°C	40°C
4mm	140°C	45°C
4mm	160°C	51°C
4mm	180°C	57°C

For any technical enquiries please contact Resimac Technical on info@resimac.co.uk

Heat Loss Guide.....

Below is a guide on what reductions can be achieved on heat loss when applying 561 Thermal Barrier to hot bare steel pipe

Pipe Dia (mm)	Fluid Temp	Ambient Temp	Surface Temp	Coating Thickness	R Value	U Value	Heat Loss 561 (W/m)	Bare Steel (W/m)
300	80°C	20°C	70°C	4mm	0.0395	5.28	298.7	701.21
300	90°C	20°C	79°C	4mm	0.0395	5.28	348.5	855.41
300	100°C	20°C	87°C	4mm	0.0395	5.28	398.2	1019.86
300	110°C	20°C	96°C	4mm	0.0395	5.28	448.0	1194.80
300	120°C	20°C	104°C	4mm	0.0395	5.28	497.80	1380.52
300	130°C	20°C	112°C	4mm	0.0395	5.28	547.60	1577.34
300	140°C	20°C	121°C	4mm	0.0395	5.28	597.40	1785.65

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An evaporator at a UK based chemical company required a coating to help reduce heat loss and the surface temperature. The surface temperature was measured at 95°C, the substrate was mechanically abraded using handheld grinders. Any corrosion pitting was filled using 107 Metal Repair Paste XL – an extended working life metal epoxy filler. Once cured the first coat of 561 Thermal Barrier was applied at 100-200 microns WFT and allowed to cure for 2 hours. Once dry a 2nd coat was applied at 500-800 microns. The following coats were applied at 1mm each to give a total DFT of 4mm. The surface temperature was measured at 35°C-45°C once the application had been completed, a 60% reduction in surface temperature.