

INSULATING FEATURES OF **PROCLAD**

In designing an insulation and cladding system, much thought must be given to the insulating and conductive properties of both the insulation and cladding. These must be positively correlated both to the efficiency and performance of the system. If the cladding does not enhance the system, something must change.

For years, the standard system has been metal over insulation. This type of system has several issues including CUI, galvanic corrosion and higher thermal and electrical conductivity.

Features and Benefits of **PROCLAD**

- Low thermal conductivity (.422 BTU/hr-ft²-°F) @97°F
- Low electrical conductance vs. metal
- High emissivity (.8) vs. metal (.1)
- Passes Static Charge test according to BS EN ISO 80079-36:2016 Annex D Charging Tests with non-conductive material
- Similar thermal conductivity as insulation underneath
- Being electrically insulated allows for safer easier design of electrically traced piping
- Not supporting static charge allows for safer design around electrical equipment and less likely to cause shock
- Metal systems must be painted to achieve similar emissivity performance, adding time and



The higher emissivity of **PROCLAD** allows for a thinner insulation design if being designed for OSHA Personnel Protection as evidenced by information below.

Personnel Protection Report

Parameters: Process Temp.@ 500°F, Ambient Temp. 75°F, Max Surface Temp. 140°F,

PROCLAD				Galvanized metal, new, bright			
Variable Insulation Thickness	Surface Temp °F	Heat Loss BTU/hr/ft	Efficiency %	Variable Insulation Thickness	Surface Temp °F	Heat Loss BTU/hr/ft	Efficiency %
Bare	498.5	3595.00		Bare	498.5	3595.00	
0.5	203.5	711.20	80.22	0.5	263.5	605.30	83.16
1	146.7	379.30	89.45	1	187.5	350.20	90.26
1.5	126.6	276.50	92.31	1.5	158.5	261.30	92.73
2	115.1	221.50	93.84	2	141.6	211.90	94.11
2.5	106.2	180.40	94.98	2.5	128.2	174.10	95.16
3	101.4	158.70	95.59	3	120.9	153.90	95.72
3.5	97.8	142.60	96.03	3.5	115.3	138.80	96.14
4	95.1	130.20	96.38	4	110.9	127.10	96.46



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