

The para flux™ product in the Lydall flux™ product family is designed to provide a marked temperature drop in high temperature applications. The dual metallic layer product has four functioning low emissivity surfaces, which lowers the IR heat flux. The metallic surfaces are decoupled by a layer of air, which dramatically lowers the composite's thermal conductivity, while improving its recyclability, mass and cost.

### General Performance

- Two metallic layer IR heat shield
- Low emissivity, parallel surfaces for high IR environments
- A heat flux reduction 1/3 greater than single layer shields
- High lateral thermal conductivity to spread heat away from hot zones
- Low vertical thermal conductivity (air) to increase the temperature drop across the shield
- Hemmed edges for handling safety and increased product robustness

### Metallic Layers

#### (a) Aluminum

- Hot Side and Cold Side
- Commercially pure 1000 series is common;
- 3000 and 5000 series are also employed
- Flat or embossed
- Shield  $T_{max} < 300\text{ °C}$

#### (i) Stainless Steel

- Austenitic and Ferritic grades based on temperature, environmental and economic constraints.
- Flat or embossed
- Shield  $T_{max} < 1000\text{ °C}$

#### (s) Aluminized Steel

- Various draw steel grades
- Various aluminized coating weights as a function of environmental/corrosion resistance requirements
- Flat or embossed
- Shield  $T_{max} < 500\text{ °C}$

### Insulation Layer

#### (n) Air

- Thickness can be varied based on packaging space
- Low thermal conductivity / Lightweight / Fully recyclable / Quasi-Free

