

## Properties

# FK 1205

## Silver-Palladium Conductor Paste for AlN-Substrates

### Typical Properties<sup>1</sup>

Shrinkage <sup>2</sup> (%)	48 -52		
Fired Film Thickness (µm)	13 -15		
Sheet Resistivity <sup>3</sup> (mOhm/sq)	< 25		
Solderability <sup>4</sup> Sn/Pb/Ag 63/35,5/1,5	> 98		
Leaching Resistance <sup>5</sup>	4 - 6 dips		
Adhesion Strength <sup>4,6</sup>	1 x fired	3 x fired	1 x fired <sup>8</sup>
Initial	> 30 N/4mm <sup>2</sup>	> 25 N/4mm <sup>2</sup>	> 28 N/4mm <sup>2</sup>
Aged for 100 h at 150°C	> 20 N/4mm <sup>2</sup>	> 18 N/4mm <sup>2</sup>	> 20 N/4mm <sup>2</sup>
Solderability <sup>7</sup> Sn10Pb88Ag2	> 98 %		
Adhesion Strength <sup>6,7</sup>			
Initial	> 25 N/4mm <sup>2</sup>		
Aged 100 h, 150°C	> 25 N/4mm <sup>2</sup>		
100 h, 180°C	> 25 N/4mm <sup>2</sup>		
100 h, 200°C	> 25 N/4mm <sup>2</sup>		

#### Notes:

<sup>1</sup> Profile: 850°C, 10 min, 60 min cyclus

<sup>3</sup> fired film Thickness 15µm

<sup>5</sup> Flux: Alpha 611, 230°C, 5 s

<sup>7</sup> Flux: Alpha 611, 330°C, 5 s

<sup>2</sup> ( dried to fired )

<sup>4</sup> Flux: Alpha 611, 220°C, 5 s

<sup>6</sup> 90 ° wire-peel-test, 2mm x 2mm, L-Sn63Ag1,5

<sup>8</sup> Profile: 850°C, 10 min, 30 min cold to cold

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### Recommended Processing Procedure:

Substrates	ANCeram AIN 140, AIN 180
Thinner	FK 100
Storage	Store cool at 4° to 10°C Allow paste to reach ambient temperature before opening Stire thoroughly before use
Printing	200 mesh stainless steel screen with 10 – 12 µm Emulsion; level at Room temperature for 10 min.
Drying	Dry at 150°C for 15 – 20 min.
Firing	In Air, Peak temperature 850 °C Peak time 10 min. Total process time 60 min.

