

## BrushForm® 65 Strip – The High Conductivity, High Performance Alloy

Materion Brush Performance Alloys' **BrushForm 65** is designed for both superior performance and high reliability in appliance, automotive and computer power applications. Alloy BF65's combination of properties limits power loss at the contact interface, controls temperature rise from resistive heating, provides stable contact force at temperatures to 200° C, extends connector current rating, and allows for miniaturization of power connectors. In addition, BF65's resistance to fatigue in repeated flexural loading provides longer life with more stable activation performance in switch and relay applications. BF65 is a high performance alloy, **at a competitive price**, that provides you with contact design flexibility and the performance demanded for success in today's electronic power applications.

### CHEMICAL COMPOSITION (weight percent)

Alloy	Nickel	Beryllium	Copper
BF65	1.0-1.4	0.15-0.5	balance

### PHYSICAL PROPERTIES

Alloy	Elastic Modulus	Density	Electrical Conductivity (minimum)	Resistivity	Thermal Conductivity	Stress Relaxation (force remaining at 175° C after 1000 hr)
BF65	20,000 ksi 138 GPa	0.318 lb/in <sup>3</sup> 8.81 g/cm <sup>3</sup>	65% IACS 38 MS/m	2.65 μΩ•cm	156 BTU/ft•hr•°F 270 W/m•°C	80%

### MECHANICAL PROPERTIES

Temper	Yield Strength (0.2%)	Tensile Strength	Elongation	Hardness	90° Formability* MBR/t Long/Trans	Fatigue Strength (10 <sup>7</sup> cycles, R = 0)
HT (TH04)	100-115 ksi 690-795 MPa	110-125 ksi 750-865 MPa	5% min.	240-270 HV	2 / 2	83 ksi 570 MPa

\*Formability varies by strip thickness – refer to engineering data on page 2

### FORMS AVAILABLE

Pre heat treated strip: 0.0025 – 0.016 inch (0.06 – 0.4 mm) thickness

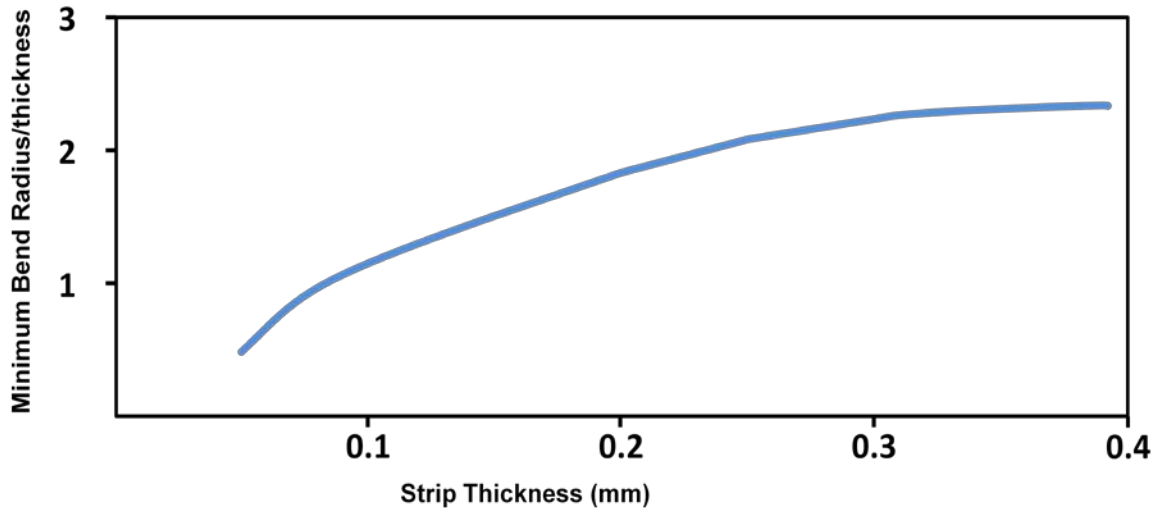
### SPECIFICATIONS

UNS C17460

### RELATED INFORMATION

Contact Materion Brush Performance Alloys at 800.375.4205 (alt. +1.216.486.4200), or your local sales representative for more information on **BrushForm 65** or to discuss your application and design requirements.

## Thin Gauge BF65 Strip Has Improved Formability



### North American Service Centers – Sales Inquiries

For strip and small diameter rod and wire:  
Elmhurst, IL  
TOLL FREE: 800-323-2438  
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For Rod, bar, tube and plate:  
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