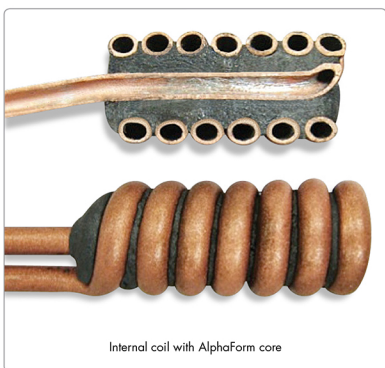
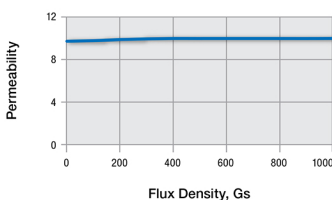
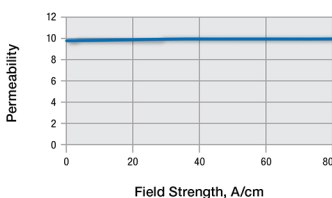
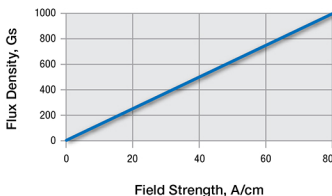


## Medium to High Frequency Soft Magnetic Composite [Frequency Range: 10 – 1000 kHz]

Formable soft magnetic composite developed on the basis of magnetic particles with a thermal-curing epoxy binder. This material may be used for quick and efficient installation to induction coils with low tolerances. No additional electrical insulation of the coil turns is necessary.

Properties	Units	ALPHAFORM MF
Density $\pm 2\%$	g/cm <sup>3</sup>	4.0
Initial Permeability	None	9.8
Maximum Permeability	None	10
Saturation Flux Density	Gs	9,000
Operating Frequency Range	kHz	10–1000
Major Frequency Range	kHz	20–450
Temperature Resistance	Centigrade	225 Long Term 300 Short Term
Thermal Conductivity	W/cm °C	0.02
Resistivity	kOhmcm	>15



Please Note: Each grade of Fluxtrol material has its own distinctive properties that are the most beneficial to certain application conditions, process type, coil design, frequency, etc. Contact Fluxtrol for more information about which material is optimal for you.

FLUXTROL 700 |
 FLUXTROL A |
 FLUXTROL 50 |
 FERROTRON 559H |
 ALPHAFORM MF



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# ALPHAFORM MF

## Medium to High Frequency Soft Magnetic Composite [Frequency Range: 10 – 1000 kHz]

### ■ Instructions for AlphaForm

- AlphaForm is soft and ductile at room temperature, but can be made even more flexible when heated with a heat gun or oven, not exceeding 140° F or 60° C as it may begin to cure and harden.
- Place a strip of heavy duty aluminum foil (0.024 mm) along the working edge of the coil. This will provide a flat surface to form the AlphaForm against. Avoid using standard aluminum foil, (0.016 mm) as it may be more difficult to remove after curing. Also, remove all aluminum foil from the AlphaForm after curing.
- Form the AlphaForm onto the coil and foil surface as desired. The AlphaForm might cool and become less pliable during forming. If it does, reheat the AlphaForm. AlphaForm can be repeatedly reheated, as long as the temperature does not exceed 140° F, or 60° C.
- Wrap PTFE (polytetrafluoroethylene) thread seal tape around the AlphaForm to hold it tight against the coil. If not held in place, AlphaForm may shift slightly during curing. Use yellow gas line PTFE tape, which is thicker than white PTFE tape.
- To cure the AlphaForm, place coil in an oven at 250°F (120°C) for one hour. Then increase the temperature to 375°F (190°C) for an additional hour.
- Remove the PTFE tape from the coil. The bottom layer of PTFE tape will be fused onto the surface of the AlphaForm, but it will not affect the performance of the coil.
- Remove the aluminum foil from the working surface of the coil. Carefully inspect the coil for any left behind foil fragments and remove them.
- Put the induction heating coil into service. No machining is needed. However, AlphaForm can be machined or ground into a more desired shape if required.
- For any additional information or help with your specific induction heating application, please contact Fluxtrol directly.



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