

DME Eco-Smart Hot Runner Nozzles - FREQUENTLY ASKED QUESTIONS

Q: I notice some Eco-Smart thermocouples have different color codes for the thermocouple lead wire insulation. What do the different color code sets mean?

A: Note: The following applies to thermocouples (or heaters with integral thermocouples) sold out of the DME USA Hot Runner Catalog. It does not apply to heaters or thermocouples sold out of the DME Molding Supply Catalog.

DME has taken steps to meet the growing needs of our customers around the world. One of these steps has been to progress to an "International" thermocouple color code per IEC 584-3 (Black = positive, White = Negative):




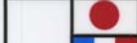



Up to the recent past, most DME thermocouples (or heaters that have integral thermocouples) have had a color code based on the ASTM E230 standard, in which the positive thermocouple wire lead (magnetic) has a white color insulation, and the negative thermocouple lead has a red color insulation. This is traditionally common in North America:



Please note that some products will continue to have the ASTM E230 standard color code (White=positive, Red = negative).

Both color code sets shown above are correct. It will be important to ensure proper wire up of the thermocouple. If the thermocouple is wired up backwards (polarity of the thermocouple is reversed), the thermocouple will fail to give the temperature controller a correctly interpretable signal. For clarity, the following color code chart may be used:

J TYPE THERMOCOUPLE STANDARDS			
	STANDARD	+ LEAD (MAGNETIC)	- LEAD
INTERNATIONAL	IEC 584-3	Black	White
	ASTM E230	White	Red
	BS 1843	Yellow	Blue
	DIN 43710	Red	Blue
	JIS C 1610-1981	Red	White
	NFC 42-324	Yellow	Black

Q: If there are different thermocouple color code sets (example: IEC 584-3 or ASTM E230) that might be delivered on a replacement heater, how do I distinguish the thermocouple leads from the power leads?

A: The power leads will be a different color from the two thermocouple leads, or, will have an identifying mark, strip or heat shrink. Please note that if the power leads were identified by an identifying mark, strip or heat shrink and the leads are cut, the identifying strip, mark or heat shrink will be removed. In such cases it is recommended to add marker tape to each power lead for ease of future maintenance.

Q: I would like some information on servicing or installing my Eco-Smart Hot Runner system. Where can I find that information?

A: The necessary information is located in the “Resources” section of the DME Website, under “Packing Slips”, and can be found [here](#). If you have a question that is not covered by the product packing slip/installation instruction, please contact your DME Customer Service Representative for assistance.

Q: I would like to perform frequent color changes. What do I need with system order?

A: Gate shell insulators are not used with Eco-Smart hot runner nozzle assemblies.

Q: Can I use the Eco-Smart hot runner system to process bio-resins other than PLA?

A: Although Eco-Smart was developed to process general-purpose PLA grades, there has been success in running other types of bio-resins or bio-resin blends. For assistance, please contact your DME Customer Service Representative, who will put you in contact with a DME Technical Service Representative to review your application requirements.

Q: I have a special blend of PLA bio-resin that I would like to test out on an Eco-Smart hot runner system. Does DME have a test tool for this purpose?

A: Yes, DME does have a test mold for processing bio-resins. There will be a fee schedule associated with using the DME Eco-Smart test mold, and it cannot be guaranteed that the DME Eco-Smart test mold will be available. Please contact your DME Customer Service Representative for assistance, who will put you in contact with a DME Technical Service Representative to review your requirements.

For additional information regarding DME Eco-Smart Hot Runner Systems, please contact your regional DME sales representative. In the USA or Canada only, please contact DME Hot Runner Technical Service at FieldTechs@DME.Milacron.com or call 800-626-6653 (U.S.) or 800-387-6000 (Canada).