

Annex C

Cross Reference of NEMA and IEC Magnet Wire Specifications (Informative)

Description Basecoat/Overcoat/Bond Overcoat	NEMA Standard Number	Thermal Class	Round Build (Bond Build)				Rectangular/Square Build			IEC Specifications	
			Single	Heavy (Type 1)	Triple (Type 2)	Quad (Type 3)	Single	Heavy (Double)	Quad	IEC No.	Thermal Class, if Different
Polyester	MW 5-C	155	X	X						-	-
Polyvinyl acetal	MW 15-A	105	X	X	-	-	-	-	-	-	-
Polyvinyl acetal	MW 15-C	105	X	X	X	X	-	-	-	60317-1	-
Polyimide	MW 16-A	260	X	X	X	X	-	-	-	-	-
Polyimide	MW 16-C	240	X	X	X	X	-	-	-	60317-46	-
Polyvinyl acetal	MW 18-A	105	-	-	-	-	-	X	X	60317-67	-
Polyvinyl acetal	MW 18-C	105	-	-	-	-	-	X	X	60317-17	-
Polyvinyl acetal/self-bonding	MW 19-C	105	-	X	X	X	-	-	-	-	-
Polyimide	MW 20-A	260						X	X	-	-
Polyimide	MW 20-C	240						X	X	60317-47	-
Polyester (amide)(imide)/polyamide	MW 24-A	155	X	X	-	-	-	-	-	-	-
Polyester (amide)(imide)/polyamide	MW 24-C	155	X	X	X	-	-	-	-	-	-
Polyurethane/polyamide	MW 28-A	130	X	X	-	-	-	-	-	-	-
Polyurethane/polyamide	MW 28-C	130	X	X	-	-	-	-	-	-	-
Polyester (amide)(imide)	MW 30-C	180	X	X	X	-	-	-	-	60317-8	-
Paper covered (also 90°C)	MW 31-A	105	X	X	-	-	-	-	-	-	-
Paper covered (also 90°C)	MW 31-C	105	X	X	-	-	-	-	-	-	-
Paper covered (also 90°C)	MW 33-A	105	-	-	-	-	X	X	-	-	-
Paper covered (also 90°C)	MW 33-C	105	-	-	-	-	X	X	-	60317-27	-
Polyester (amide)(imide)/polyamideimide	MW 35-A	220	X	X	-	-	-	-	-	60317-25	200
Polyester (amide)(imide)/polyamideimide	MW 35-C	200	X	X	X	X	-	-	-	60317-13	-
Polyester (amide)(imide)/polyamideimide	MW 36-A	220	-	-	-	-	-	X	X	60317-69	-
Polyester (amide)(imide)/polyamideimide	MW 36-C	200	-	-	-	-	-	X	X	60317-29	-
Polyester (amide)(imide) overcoated with polyamideimide	MW 37-C	220	X	X	X	-	-	-	-	-	-
Polyester (amide)(imide) overcoated with polyamideimide	MW 38-C	220	-	-	-	-	-	X	X	-	-

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			Single	Heavy (Type 1)	Triple (Type 2)	Quad (Type 3)	Single	Heavy (Double)	Quad	IEC No.	Thermal Class, if Different
Glass fiber/varnish	MW 41-C	155	X	X	-	-	-	-	-	60317-48	-
Glass fiber/varnish	MW 42-C	155	-	-	-	-	X	X	-	60317-32	-
Glass fiber/silicone varnish	MW 43-C	200	-	-	-	-	X	X	-	60317-33	-
Glass fiber/silicone varnish	MW 44-C	200	X	X	-	-	-	-	-	60317-50	**
Polyester glass fiber covered, fused and unvarnished	MW 45-C	155	X	X	-	-	-	-	-	60317-70-1	-
Polyester glass fiber covered, fused and unvarnished	MW 46-C	155	-	-	-	-	X	X	-	60317-60-1	-
Polyester glass fiber/silicone varnish	MW 47-C	200	X	X	-	-	-	-	-	60317-72	**
Polyester glass fiber/silicone varnish	MW 48-C	200	-	-	-	-	X	X	-	60317-62	**
Glass fiber/high temperature varnish	MW 50-C	180	X	X	-	-	-	-	-	60317-49	-
Polyester glass fiber/high temperature varnish	MW 51-C	180	X	X	-	-	-	-	-	60317-71	-
Glass fiber/high temperature varnish	MW 52-C	180	-	-	-	-	-	X	X	60317-31	-
Polyester glass fiber/high temperature varnish	MW 53-C	180	-	-	-	-	-	X	X	60317-61	-
Polyester glass fiber covered, varnish treated	MW 54-C	155	X	X	-	-	-	-	-	60317-70-2	-
Polyester glass fiber covered, varnish treated	MW 55-C	155	-	-	-	-	X	X	-	60317-60-2	-
Aromatic polyamide paper covered	MW 60-A	220	-	-	-	-	-	X	-	-	-
Aromatic polyamide paper covered	MW 60-C	220	-	-	-	-	-	X	-	60317-53	-
Aromatic polyamide paper covered	MW 61-A	220	-	X	-	-	-	-	-	-	-
Aromatic polyamide paper covered	MW 61-C	220	-	X	-	-	-	-	-	60317-52	-
Aromatic polyimide tape covered	MW 64-A	240					X	X		-	
Aromatic polyimide tape covered	MW 64-C	240	-	-	-	-	X	X	-	60317-44	-
Aromatic polyimide tape covered	MW 65-A	240	X	X	-	-	-	-	-	-	-
Aromatic polyimide tape covered	MW 65-C	240	X	X	-	-	-	-	-	60317-43	-
Polyester (amide)(imide) Hermetic applications	MW 72-C	180	-	X	-	-	-	-	-	60317-8	-
Polyester (amide)(imide)/polyamideimide Hermetic applications	MW 73-A	220	-	X	-	-	-	-	-	60317-25	200
Polyester (amide)(imide)/polyamideimide Hermetic applications	MW 73-C	200	-	X	-	X	-	-	-	60317-13	-
Polyester (amide)(imide)	MW 74-A	220	X	X	-	-	-	-	-	-	-

** Silicone varnish not specified

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			Single	Heavy (Type 1)	Triple (Type 2)	Quad (Type 3)	Single	Heavy (Double)	Quad	IEC No.	Thermal Class, if Different
Polyester (amide)(imide)	MW 74-C	200	X	X	-	-	-	-	-	-	-
Polyurethane	MW 75-C	130	X	X	-	-	-	-	-	-	-
Polyester (amide)(imide)/polyamide	MW 76-A	180	X	X	-	-	-	-	-	60317-24	-
Polyester (amide)(imide)/polyamide	MW 76-C	180	X	X	X	-	-	-	-	60317-22	-
Polyester (imide) solderable	MW 77-C	180	X	X	-	-	-	-	-	60317-23	-
Polyester (imide)/polyamide solderable	MW 78-C	180	X	X	-	-	-	-	-	-	-
Polyurethane	MW 79-C	155	X	X	X	-	-	-	-	60317-20	-
Polyurethane/polyamide	MW 80-A	155	X	X	-	-	-	-	-	-	-
Polyurethane/polyamide	MW 80-C	155	X	X	X	-	-	-	-	60317-21	-
Polyamideimide	MW 81-C	220	X	X	-	-	-	-	-	60317-57	-
Polyurethane	MW 82-C	180	X	X	X	-	-	-	-	60317-51	-
Polyurethane/polyamide	MW 83-C	180	X	X	X	-	-	-	-	60317-55	-
Polyamideimide	MW 84-C	220	-	-	-	-	-	X	X	60317-58	-
Polyurethane FIW zero-defect solderable	MW 85-C	180	-	-	-	-	-	-	-	60317-56	-
Polyvinyl Acetal	MW 86-A	120	X	X	X	X				-	-
Polyvinyl Acetal	MW 86-C	120	X	X	X	X				60317-12	-
Polyvinyl Acetal	MW 87-A	120						X		60317-68	-
Polyvinyl Acetal	MW 87-C	120						X		60317-18	-
Polyvinyl Acetal with self-bonding overcoat	MW 88-C	120					X	X		60317-80	-
Polyester (amide)(imide)/polyamideimide w/self-bonding overcoat	MW 102-A	180	-	X	X	-	-	-	-	-	-
Polyester (amide)(imide)/polyamideimide w/self-bonding overcoat	MW 102-C	180	-	X	X	-	-	-	-	60317-38	-
Polyester (amide)(imide)/polyamideimide w/self-bonding overcoat (bond strength requirement not specified)	MW 103-C	180		X	X					-	-
Polyamideimide w/self-bonding overcoat	MW 122-C	180	-	X	X					-	-
Polyurethane/self-bonding	MW 130-C	130	-	X	X	-	-	-	-	60317-2	-
Polyurethane/polyamide/self-bonding	MW 131-C	155	-	X	X	-	-	-	-	-	-
Polyurethane/self-bonding	MW 132-C	180	-	X	X	-	-	-	-	-	-
Polyurethane/self-bonding	MW 135-C	130	-	X	X	-	-	-	-	60317-35	-
Polyurethane/polyamide/self-bonding	MW 136-C	155	-	X	X	-	-	-	-	-	-
Polyurethane/polyamide/self-bonding	MW 137-C	180	-	X	X	-	-	-	-	-	-

IEC—Specifications with No NEMA Equivalent	Thermal Class	IEC Build Grades					IEC Specification No.
		Round wire			Rectangular wire		
		G1	G2, G1B	G3, G2B	G1	G2	
Polyesterimide enameled copper	180	-	-	-	X	X	60317-28
Polyesterimide enameled copper	200	X	X	X			60317-84 †
Polyesterimide enameled aluminum	180	X	X	-	X	X	60317-15
Polyester (imide) w/ self bonding overcoat solderable enameled copper	180	-	X	X	-	-	60317-36
Polyester (imide) w/ self bonding overcoat enameled copper	180	-	X	X	-	-	60317-37
Glass fiber braided polyester (imide) varnish treated enameled copper	180	-	-	-	X	X	60317-39
Glass fiber braided silicone varnish treated bare or enameled copper	200	-	-	-	X	X	60317-40
Polyamideimide enameled copper	240	X	X	-	-	-	60317-59
Polyester or polyesterimide overcoated with polyamideimide enamelled aluminum	200				X	X	60317-73
Polyesterimide enameled aluminum	180				X	X	60317-74

† Under development