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INCH-POUND
MIL-M-14H
AMENDMENT 3
19 May 1993
SUPERSEDING
AMENDMENT 2
28 May 1991

MILITARY SPECIFICATION

MOLDING COMPOUNDS, THERMOSETTING

This amendment forms a part of MIL-M-14H, dated 2 April 1990, and is approved for use by all Department and Agencies of the Department of the Defense.

PAGE 2

Paragraph 2.1.1: Under "Standards, Federal" delete "FED-STD-406" and substitute "ASTM D4350".

PAGE 4

Paragraph 3.2.1, first line: Delete "every 5 years".

PAGE 5

Paragraph 3.6: Delete and substitute:

"3.6 Compound. The compound shall consist of a filler impregnated or intimately combined with a thermosetting condensation or polymerization product binder, processed to conform to this specification. Unless otherwise specified herein, all material incorporated in the products covered by this specification shall be new and may be fabricated using materials produced from recovered materials to the maximum extent practicable without jeopardizing the intended use. The term "recovered materials" means materials which have been collected or recovered from solid waste and reprocessed to become a source of raw materials, as opposed to virgin raw materials. Material shall be free from foreign substances. None of the above shall be interpreted to mean that the use of used products is allowed under this specification unless otherwise specifically specified."

PAGE 7

Paragraph 4.5.1.3, second line: Delete "post-core", and substitute "post-cure".

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PAGE 8

Table I, under "Impact strength...": Delete and substitute:

Property to be tested-mechanical/ physical	Test method ASTM	Modified by	Specimens Form and dimension	Number tested	Conditioning procedure (see 4.5.1.5)	Unit of value
Impact Strength						
Side 2/	D 256	-	As per ASTM D 256	5	E-48/50 + C-96/23/50	ft-lb/in notchotch (min. average)
Face 3/4/	D 256		As per ASTM D 256	5	E-48/50 + C-96/23/50	ft-lb/in notch (min. average)

Table I, Footnotes: Add the following:

3/ The face of the test specimen is that area formed by the top or bottom force plug.
4/ When specified.

PAGE 9

Table II, "Dielectric constant" and "Dissipation factor", under column "Form and dimension": Delete "4-inch disc, 1/8 inch", and substitute "2-inch disc, 1/8 inch".

PAGE 10

Table II, "Comparative track index", under "Form and dimension": Delete "4-inch disc, 1/8", and substitute "2-inch disc, 1/8 inch".

PAGE 11

Table III, "Flame resistance: Burning time", under column "Unit of value": Delete "minium", and substitute "maximum".

PAGE 12

Table IV, "Comparative track index", under column "Form and dimension": Delete "4-inch disk, 1/8 inch", and substitute "2-inch disk, 1/8 inch".

Table IV, "Dielectric strength," under column "Number tested": Delete "3",and substitute "5".

Table IV, "Water extract conductance", last line, under column "Conditioning procedure": Add "E144/71".

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Paragraph 4.5.2.4, third line: Delete "ASTM D 290", and substitute "ASTM D 790".

PAGE 14

Under "Temperature": Delete and substitute:

Type	Temperature °C	
SDG & SDG-F	100	
GDI-30 & GDI-30F	130	All other materials for heat
MDG & MDG-F	90	resistance temperature are to
SIG & SIG-F	140	be determined by individual
GII-30 & GII-30F	160	laboratories and returned to
MIG & MIG-F	120	NAVSEA for consideration.

PAGE 16

Paragraph 4.5.2.8: Add a third line, "Example:"

PAGE 18

Paragraph 4.5.2.10, second line: Delete and substitute "using the vertical or horizontal burning test and either 1/16-, 1/8- or 1/4-inch thick specimens. Record as"

PAGE 19

* Add as new paragraph 6.7:

"6.7 Substitutability. Diallyl phthalate molding compounds are divided into two (2) separate chemical categories, diallyl iso-phthalate materials covered by MIL-M-14/5 and diallyl ortho-phthalate materials covered by MIL-M-14/6. Diallyl iso-phthalate types covered by MIL-M-14/5 are required to meet mechanical/ physical, electrical and combustion requirements which are equal or superior to those of their comparable type diallyl ortho-phthalate material covered by MIL-M-14/6. In molded parts the specific type MIL-M-14/5 iso-phthalate material listed below may be substituted for its comparable specific type MIL-M-14/6 ortho-phthalate material listed below.

MIL-M-14/5 diallyl iso-phthalate type	MIL-M-14/6 comparable diallyl ortho-phthalate type
GII-30	GDI-30
GII-30F	GDI-30F
MIG	MDG
MIG-F	MDG-F
SIG	SDG
SIG-F	SDG-F

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The MIL-M-14/6 materials may not be substituted for MIL-M-14/5 materials. Before any substitution of a MIL-M-14/5 material is made in a molded part, the molding characteristics of the particular material should be considered.

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TABLE VI. Supersession data.

Resin	Compound type	Specification sheets of MIL-M-14H	MIL-M-14G	MIL-M-18794A	MIL-M-19061	MIL-M-19536A	MIL-M-19833A	MIL-M-21556	MIL-M-21699	MIL-M-24325
Phenolic	CFG	MIL-M-14/1	X							
"	CFI-5	"	X							
"	CFI-10	"	X							
"	CFI-20	"	X							
"	CFI-30	"	X							
"	CFI-40	"	X							
"	MFA-30[1]	"	X					X		
"	MFE	MIL-M-14/2	X							
"	MFG[1]	"	X							
"	MFH	"	X							
"	MFI-10[1]	"	X							
"	MFI-20[1]	"	X							
"	GPG	"	X							
"	GPI-5	"	X							
"	GPI-10	"	X							
"	GPI-20	"	X							
"	GPI-30	"	X							
"	GPI-50	"	X							
"	GPI-100	"	X			X				
Melamine	CMG	MIL-M-14/3	X							
"	CMI-5	"	X							
"	CMI-10	"	X							
"	MME	"	X							
"	MMI-5	"	X		X					
"	MMI-30	"	X							

See footnote at end of table.

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TABLE VI. Supersession data - Continued.

Resin	Compound type	Specification sheets of MIL-M-14H	MIL-M-14G	MIL-M-18794A	MIL-M-19061	MIL-M-19536A	MIL-M-19833A	MIL-M-21556	MIL-M-21699	MIL-M-24325
Polyester	MAG	MIL-M-14H/4	X							
"	MAI-30	"	X							
"	MAI-60	"	X						X	
"	MAT-30	"	X							
Diallyl iso-phthalate	GII-30	MIL-M-14H/5								
"	GII-30F	"								
"	MIG	"								
"	MIG-F	"								
"	SIG	"								
"	SIG-F									
Diallyl ortho-phthalate	GDI-30	MIL-M-14H/6	X				X			
"	GDI-30F	"	X				X			
"	GDI-300	"								
"	GDI-300F	"								
"	MDG	"	X							
"	MDG-F	"	X							
"	SDG	"	X	X						
"	SDG-F	"	X							
"	SDI-5	"	X	X						
"	SDI-30	"	X	X						
Silicone	MSG	MIL-M-14H/7	X							
"	MSI-30	"	X							

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Table VI: Delete and substitute (page 5 attached).

PAGE 21

Table VI: Delete and substitute (page 6 attached).

PAGE 22

Table VI, fifth column, title: Delete "1879A", and substitute "18794A".

NOTE: The margins of this amendment are marked with asterisks to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

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