

## Polymers, Thermoset

Code	Description	Specification, Date	Trade and Source Names
24-000	Polymers, thermosetting.		
24-021	Phenolic, wood flour filled		
24-021A	Phenolic, wood flour filled, type 2, 2 stage	ASTM D700	<b>(1)</b> 791; Durez <b>(2)</b> Plenco 02000; Plenco
24-025	Phenolic, wood flour filled, 2 stage		
24-025A	Phenolic, wood flour filled, 2 stage, electrical grade		<b>(1)</b> 21372; Durez
24-031	Phenolic, general purpose, cellulose filled		
24-031A	Phenolic, general purpose, cellulose filled, mineral content 9 percent maximum	IBM M-H 5-2403-101, 9811	<b>(1)</b> 16378A; Durez
24-031B	Phenolic, general purpose, cellulose filled, mineral content 9-16 percent	IBM M-H 5-2403-102, 9811	<b>(1)</b> Fibroformo; Monti E Martini
24-041	Phenolic, two stage, flocked filled		
24-041A	Phenolic, flock-filled, two-stage, shock resistant, minimum impact 25 joules per meter of notch min.	IBM M-H 5-2404-101, 9811	<b>(1)</b> RX-448; Rogers
24-041B	Phenolic, two stage, shock resistant, flock filled, minimum impact, 19-24 joules per meter of notch, flame retarded		<b>(1)</b> 13124A; Durez <b>(2)</b> RX-525; Rogers <b>(3)</b> Vyncolite RX-525; Vynckier
24-041C	Phenolic, two stage, flock filled, shock resistant, impact 19-24 joules per meter of notch minimum, IRI 5B at 1.6 millimeter		
24-044A	Discontinued, use materials approved for 24-041B.		
24-061A	Phenolic, two stage, chopped fabric or organic material filled, type 4	ASTM D700	<b>(1)</b> FM 1132P; Fiberite <b>(2)</b> RX 431; Rogers

			<b>(3)</b> RX 473; Rogers
24-063A	Phenolic, cellulose and mineral (asbestos) filled, moderate impact. This detail code discontinued because of its potentially hazardous properties. Recommendations on asbestos-free replacement materials are available from the SPA, plastics. Note: must not be used in new parts or in new applications of existing parts. Existing parts should be reviewed for change of material. If change impossible, notify the SPA.		
24-071	Phenolic, two stage, cotton fiber reinforced		
24-071A	Phenolic, two stage, cotton fiber reinforced, medium-high impact. Discontinued, use materials specified for code 24-061A.		
24-091A	Phenolic, low density, heat resistant, (asbestos) filled, moderate impact. This detail code discontinued because of its potentially hazardous properties. Recommendations on asbestos-free replacement materials are available from the SPA, plastics. Note: must not be used in new parts or in new applications of existing parts. Existing parts should be reviewed for change of material. If change impossible, notify the SPA.		
24-092	Phenolic, heat resistant, low density		
24-092A	Phenolic, two stage, low density, heat resistant, high flow		<b>(1)</b> Plenco 04300; Plenco
24-093A	Phenolic, two stage, heat resistant, mineral and nominally 30 percent wood flour filled, stiff flow. Discontinued, use materials specified for code 24-101A.		
24-101	Phenolic, two stage, arc resistant, electrical grade		
24-101A	Phenolic, two stage, arc resistant, electrical grade, mineral filled, type 22	IBM M-H 5-2410-101, 9811 ASTM D700	
24-112	Phenolic, mineral filled, electrical grade		
24-112A	Phenolic, two stage, mineral filled, electrical grade, superior low loss, type 8. Discontinued, use materials specified for code 24-101A.	ASTM D700	
24-121A	Phenolic, two stage, glass fiber and graphite filled, conductive, antistatic		<b>(1)</b> FM 4005-4648; Fiberite <b>(2)</b> RX620; Vynckier

24-131A	Phenolic, mineral (asbestos) filled, heat resistant, type 9, mechanical grade. This detail code discontinued because of its potentially hazardous properties. Recommendations on abbestos-free replacement materials are available from the SPA, plastics. Note: must not be used in new parts or in new applications of existing parts. Existing parts should be reviewed for change of material. If change impossible, notify the SPA.		
24-135A	Phenolic, two stage, general purpose, mineral filled, type 10. Discontinued, use materials specified for code 24-101A.	ASTM D700	
24-141	Phenolic, synthetic fiber filled		
24-141A	Phenolic, nylon flock filled, type 24	ASTM D700	<b>(1)</b> FM 1303-8880 (pelletized); Fiberite
24-161	Phenolic, glass filled		
24-161A	Phenolic, glass filled, moderate impact, electrical and mechanical grade, 2 stage	IBM M-H 5-2416-101, 9811	<b>(1)</b> BXL DX 19466/1; Bakelite <b>(2)</b> Decavetro 111; San Giuliano <b>(3)</b> Durez 23570; Durez <b>(4)</b> FM-4005; Fiberite <b>(5)</b> Phenal 8000; Plaskon <b>(6)</b> RX611; Vynckier <b>(7)</b> RX-611; Rogers <b>(8)</b> BXL DX 19466/45; Bakelite <b>(9)</b> BXL DX 19326/45; Bakelite <b>(10)</b> FM-4007; Fiberite
24-162A	Discontinued, use materials specified for code 24-161A.		
24-163	Phenolic, two stage, glass filled, low shrink		
24-	Phenolic, two stage, mineral and glass filled,	IBM M-H 5-2416-	<b>(1)</b> FM 4004;

163A	low shrink	301, 9811	Fiberite <b>(2)</b> RX660; Rogers <b>(3)</b> RX660; Vynckier
24-166	Phenolic, filled, moderate impact, low friction		
24-166A	Phenolic, two stage, glass and polytetrafluoroethylene (PTFE) filled, moderate impact, low friction		<b>(1)</b> FM 4009; Fiberite
24-167	Phenolic, filled, wear resistance		
24-167A	Phenolic, two stage, glass and aluminum oxide filled, wear resistant		<b>(1)</b> FM 4005-4635; Fiberite
24-171	Phenolic, filled, high impact		
24-171A	Phenolic, two stage, fiber reinforced, glass filled, high impact, type GP-100	US Military MIL-M-14	<b>(1)</b> FM 4030-190; Fiberite
24-172	Phenolic, high impact, filled		
24-172A	Phenolic, two stage, glass fiber reinforced, high impact, izod notched impact 530 joules per meter.		<b>(1)</b> FM 5064; Fiberite
24-173	Phenolic, heat and arc resistant		
24-173A	Phenolic, two stage, glass fiber reinforced, high impact, heat and arc resistant. Discontinued, use materials specified for code 24-172A.		<b>(1)</b> FM 10447; Fiberite
24-181	Phenolic, lubricated, anti friction filled		
24-181A	Phenolic, lubricated, anti-friction, 10 percent polytetrafluoroethylene (PTFE) filled, low impact		<b>(1)</b> Plenco 06554; Plenco
24-182A	Phenolic, lubricated, anti-friction, 10 percent polytetrafluoroethylene (PTFE) filled, medium high impact		<b>(1)</b> FM 3000; Fiberite
24-185A	Phenolic, carbon fiber filled, flame retarded	IBM M-H 5-2418-501, 9811	<b>(1)</b> KOBELCO KPC-202; KSL

24-191	(discontinued), use materials approved for 24-021A		
24-304	Polyurethane structural foam		
24-304A	Polyurethane structural foam, rigid, flame retarded, density 600 kilograms per cubic meter. Discontinued, use materials specified for code 29-804A. Contact the SPA for 129.13.		
24-411	Melamine formaldehyde, mineral filled		
24-411A	Melamine formaldehyde, mineral filled, type 2	ASTM D704	<b>(1)</b> M-6204; Fiberite
24-441	Melamine formaldehyde, cellulose filled		
24-441A	Melamine formaldehyde, cellulose filled, type I	IBM M-H 5-2444-101, 9811	<b>(1)</b> Cymel 1077; Cyanamid <b>(2)</b> Isomin 751; Perstop
24-471	Melamine phenolic, cellulose filled		
24-471A	Melamine phenolic, cellulose filled, improved impact		<b>(1)</b> Plenco 00732; Plenco
24-511	Urea formaldehyde, cellulose filled		
24-511A	Urea formaldehyde, cellulose filled, type 1	ASTM D705	<b>(1)</b> Beetle W-300; Cyanamid
24-611A	Diallyphthalate, mineral filled, type 2, class A, grade 1. Discontinued, use materials specified for code 24-681A.	ASTM D1636	
24-625A	Diallyphthalate, mineral filled, flame retarded, type 2, class d, grade 1. Discontinued, use materials specified for code 24-685A.	ASTM D1636	
24-651A	Diallyphthalate, polyester fiber, reinforced, flame retarded, type 3, class A, grade 2. Discontinued, use materials specified for code 24-685A.	ASTM D1636	
24-661A	Diallyphthalate, glass filled, flame retarded, type SDG-F. Discontinued, use materials specified for code 24-685A	US Military MIL-M-14	
24-661B	Diallyphthalate, short glass fiber, reinforced, flame retarded, type 1, class B, grade 1. Discontinued, use materials specified for code 24-685A.	ASTM D1636	
24-	Diallyphthalate, short glass fiber, reinforced,	ASTM D1636	

665A	flame retarded, type 1, class d, grade 3. Discontinued, use materials specified for code 24-685A.		
24-681	Diallyl phthalate, long glass fiber reinforced.		
24-681A	Diallyl phthalate, long glass fiber reinforced, ASTM D 1636-75A, type I class D, grade 1	US Military MIL-M-14	<b>(1)</b> Diall 52-40-40; Plaskon
24-685	Diallyl phthalate, long glass fiber reinforced.		
24-685A	Diallyl phthalate, long glass fiber, reinforced, flame retarded, type 1, class d, grade 4	ASTM D1636	<b>(1)</b> Diall FS-80; Plaskon <b>(2)</b> 3-2-530; ACME Resin
24-711	Alkyd molding compound		
24-711A	Alkyd, glass fiber reinforced, and mineral filled molding compound, type mal-60	US Military MIL-M-14	<b>(1)</b> Plaskon 446; Plaskon
24-711B	Alkyd, glass fiber reinforced, and mineral filled molding compound, type 5	ASTM D1201	<b>(1)</b> Glaskyd 1902; Cyanamid
24-711C	Alkyd, glass fiber reinforced, and mineral filled molding compound, type mal-30	US Military MIL-M-14	
24-711D	Alkyd, glass fiber reinforced, and mineral filled molding compound, medium impact		
24-711E	Alkyd, glass fiber reinforced, mineral filled molding compound, low impact, flame retarded		
24-711F	Alkyd molding compound, glass fiber reinforced, and mineral filled, dap modified. Flame retarded, UL 94 V-0 at 0.08 millimeter, impact 80 joules per meter minimum.		
24-713A	Alkyd, glass and mineral filled		<b>(1)</b> Glaskyd 2051B; Cyanamid
24-714A	Discontinued, use materials approved for 24-711D.		
24-716A	Discontinued, use materials approved for 24-711E.		
24-751A	Alkyd, mineral filled, flame retarded, type mag. Discontinued, use materials speceified for code 24-711. Contact the IBM purchasing	US Military MIL-M-14	

	department.		
24-755A	Alkyd, mineral filled, general purpose putty, type 3. Discontinued, use materials specified for code 24-711. Contact the IBM purchasing department.	ASTM D1201	
24-761	Polyethylene terephthalate film, general purpose		
24-761A	Polyethylene terephthalate film, general purpose, type 1. Use material specified for code 29-161A		
24-763	Polyethylene terephthalate film		
24-763A	Polyethylene terephthalate film, capacitor grade. Use material specified for code 29-162A		
24-764	Polyethylene terephthalate film, when suffix is not specified use material approved for 24-764B		
24-764A	Polyethylene terephthalate film, electrical insulating, low shrink. Use material specified for 29-163A		
24-764B	Polyethylene terephthalate film, high transparency, dimensionally stable. Use material specified for 29-164A		
24-765	Polyethylene terephthalate film		
24-765A	Polyethylene terephthalate film, high clarity. Use material specified for 29-164A		
24-766	Polyethylene terephthalate film		
24-766A	Polyethylene terephthalate film, high tensile strength. Use material specified for 29-165A		
24-767	Polyethylene terephthalate film		
24-767A	Polyethylene terephthalate film, polyester adhesive coated. Use material specified for 29-168A		
24-768	Discontinued, use materials approved for 19-863.		
24-769	Discontinued, use materials approved for 19-864A.		
24-781	Allyl diglycol carbonate		
24-781A	Allyl diglycol carbonate resin		<b>(1)</b> CR 39; Pittsburgh Plate Glass
24-781B	Allyl diglycol carbonate, cast sheet. Discontinued.		
24-782	Allyl diglycol carbonate sheet		
24-782A	Allyl diglycol carbonate cast sheet. Use material specified for 29-155A		

24-804	Allyl diglycol carbonate, cast sheet. Discontinued.		
24-821	Polyester, glass premix, flame retardant		
24-821A	Polyester premix, 15 percent glass fiber		<b>(1)</b> Premi-Glass 2000-15-CR-SX; Premix
24-822	Polyester, thermosetting, bulk molding compound (BMC)	IBM M-P 5-2482-200, 9811	
24-822A	Polyester, thermosetting, bulk molding compound (BMC), 15 percent glass fiber, low shrink, flame retarded	IBM M-H 5-2482-201, 9811	<b>(1)</b> Premi-Glass 2100-15-CR-SX; Premix
24-822B	Polyester, thermosetting, bulk molding compound (BMC), 22 percent glass fiber, low shrink, flame retarded	IBM M-H 5-2482-202, 9811	<b>(1)</b> Premi-Glass 2100-22-CR-SX; Premix
24-823	Polyester, thermosetting, sheet molding compound (SMC), glass fiber reinforced, low shrink, flame retarded	IBM M-P 5-2482-300, 9811	
24-823A	Polyester, thermosetting, sheet molding compound (SMC), 15 percent glass fiber, low shrink, flame retarded.	IBM M-H 5-2482-301, 9811	<b>(1)</b> Premi-Glass 2200-CR-SX- SMC-LS-15; Premix
24-823B	Polyester, thermosetting, sheet molding compound (SMC), 22 percent glass fibers, low shrink, flame retarded	IBM M-H 5-2482-302, 9811	
24-823C	Polyester, thermosetting, sheet molding compound (SMC), 29 percent glass fibers, low shrink, flame retarded	IBM M-H 5-2482-303, 9811	<b>(1)</b> Shimoco FRLS 310; Savid <b>(2)</b> Verkid APG 10 R black; Astar
24-824	Polyester molding compounds		
24-824A	Polyester molding compounds, styrene modified, mineral filled, glass fiber reinforced, flame retarded, impact 100 joules per meter of notch minimum, arc resistant		<b>(1)</b> Cyglas 610; Cyanamid
24-911	Epoxy encapsulating compound. When suffix is not specified, select material according to type Identified on drawing		
24-	Epoxy encapsulating compound, low shrink.		

911A	Discontinued- vendors shall consult IBM purchasing department for alternate materials. Internal users should consult their materials function or the SPA		
24-911B	Epoxy encapsulating compound, mineral filled, 5 percent molybdenum disulfide		
24-912A	Epoxy encapsulating compound, mineral filled, high shrink. Discontinued.		
24-913A	Epoxy encapsulating compound, short glass fibers		<b>(1)</b> E 9405 BK; Fiberite
24-922A	Epoxy granular molding compound, mineral and glass filled, low impact		<b>(1)</b> 1904; Plaskon
24-923A	Epoxy granular molding compound, glass filled, heat resistant		<b>(1)</b> 1907; Plaskon
24-931A	Epoxy unfilled casting compound, general purpose, low viscosity		<b>(1)</b> RE 2038; Hysol
24-935	Epoxy, unfilled casting compound		
24-935A	Epoxy, unfilled casting compound, flame retarded. Discontinued.		
24-942A	Epoxy, filled casting compound, low shrink, electrical grade, thermally conductive		<b>(1)</b> Stycast 2850 FT and Catalyst 9, 0R 11, 0R 24LV; Emerson and Cuming
24-951	Epoxy, cast, metal filled		
24-951A	Epoxy, casting tooling grade, aluminum filled. Discontinued, use materials specified for codes 24-951B or 24-951C as suited for process requirements.		
24-951B	Epoxy, casting compound, 80 percent iron filled		<b>(1)</b> Resin Araldite CW 214 and Hardener Hy 214; Ciba-Geigy
24-951C	Epoxy, casting compound, 80 percent bronze filled. (Each of the four components listed in		<b>(1)</b> Filler : Bronze Powder

	the TRADE and SOURCE NAMES column are required for this material code. Contact SPA 129.02 for further information.)		1403; Gulf <b>(1)</b> Resin : Epon 826 or 828 (U.S.A.); Shell <b>(1)</b> Hardener : DEH 24 (triethylene tetramine); Dow Chemical <b>(1)</b> Resin : Epikote 826 (outside U.S.A.); Shell
24-971A	Epoxy molding compound, 60 percent 13 millimeters glass fibers, unidirectional. Discontinued, contact the IBM purchasing department.		

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