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Insulated Wire and Cable - 1997

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Information about the scope of the survey, methodology, explanation of terms and historical notes for this survey may be found in the introduction of the 1996 Manufacturing Profiles, issued July 1998.

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Summary of Findings: In 1997, the total value of manufactures' shipments of insulated wire and cable increased by 7 percent to \$19,540 million from \$18,234 million in 1996. Copper insulated wire and cable increased by 9 percent to \$11,169 from the 1996 level of \$10,225 million. In 1997 aluminum insulated wire and cable increased by 2 percent to \$3,962 from the 1996 level of \$3,892 million. Copper magnet wire decreased by 2 percent from the 1996 level of \$1,238 million to \$1,215 million in 1997. Aluminum magnet wire increased by 11 percent in 1997 to \$133 million from the 1996 level of \$120 million. In 1997 insulated optical fiber cable increased 7 percent to \$1,852 million from the \$1,728 million in 1996. Optical cable increased by 17 percent in 1997 to \$1,210 million from the 1996 level of \$1,031 million.

Table 1. Summary of Shipments of Insulated Wire and Cable: 1997 and 1996
 [Value in thousands of dollars]

Product code	Product description	1997	1996
	Insulated wire and cable	19,539,959	18,234,251
3357A --	Electronic wire and cable	2,747,996	2,544,194
3357B --	Telephone and telegraph wire and cable	2,224,550	2,075,275
33578 --	Power wire and cable	1,561,193	1,487,776
33578 6 -	Portable power cable	70,573	95,276
3357C --	Control and signal wire and cable	280,368	247,658
3357D --	Building wire and cable	2,933,996	2,492,797
33576 --	Apparatus wire and cordage	810,254	812,295
3357E --	Other insulated wire and cable	539,779	469,657
3357- pt.	Aluminum insulated wire and cable	3,962,426	3,891,547
33577 --	Magnet wire	1,347,539	1,358,975
33579 --	Insulated optical fiber cable	1,851,613	1,727,980
32318--	Optical fiber	1,209,672	1,030,821

pt. Part.

Table 2. Shipments of Copper Insulated Wire and Cable: 1997 and 1996
 [Shipments in thousands of pounds. Value in thousands of dollars]

Product code	Product description	Shipments, including interplant transfers 1/					
		1997			1996		
		No. of cos.	Copper content 2/	Value	No. of cos.	Copper content 2/	Value
3357 pt.	Insulated wire and cable (except magnet wire and optical wire)	(NA)	2,810,090	11,168,709	(NA)	2,561,191	10,224,928
3357A --	Electronic wire and cable	82	235,747	2,747,996	85	202,491	2,544,194
	Coaxial cable, armored or unarmored:						
3357A 10	Rigid	4	640	4,383	4	r/ 624	4,547
3357A 12	Semi rigid	14	31,339	479,532	14	26,748	460,868
	Flexible:						
3357A 13	135 C and over	13	3,779	66,793	13	3,714	59,116
3357A 14	Under 135 C	28	27,635	419,666	28	r/ 23,649	401,491
3357A 16	CATV/broad cast coaxial cable	7	(D)	(D)	7	(D)	(D)
3357A 22	Antenna lead-in wire	7	(D)	(D)	6	(D)	(D)
	Hookup wire (single conductor, shielded and non shielded):						
3357A 23	135 C and over temperature rating	24	19,033	247,814	25	12,014	r/ 188,451
3357A 25	Under 135 C temperature rating	39	20,000	103,505	40	17,024	83,353
	Multiconductor electronic wire and cable (shielded and non shielded):						
3357A 30	Flat and ribbon cable	21	8,297	97,031	21	r/ 6,933	r/ 82,245
	Other multiconductor electronic wire and cable:						
	Shielded:						
3357A 31	135 C and over temperature	18	32,308	252,888	19	26,445	233,282
3357A 33	Under 135 C temperature rating	33	33,151	277,797	35	r/ 31,126	244,941
	Non shielded:						
3357A 35	135 C and over temperature rating	11	11,320	127,869	12	10,504	115,663
3357A 37	Under 135 C temperature rating	29	34,414	206,935	31	33,314	201,120
3357B --	Telephone and telegraph wire and cable	28	501,335	2,224,550	30	497,063	2,075,275
3357B 41	Jumper and distributing frame wire	7	(D)	(D)	7	(D)	(D)
3357B 43	Station wire and cable	15	19,380	156,006	17	r/ 17,299	r/ 129,317
3357B 48	Telephone cord sets and cordage	5	(D)	(D)	5	(D)	(D)
3357B 52	Inside wiring cable	18	79,428	488,474	19	74,256	440,381
3357B 55	Drop and bridle and duct wire	4	55,049	218,508	4	49,028	195,854
3357B 68	Rural and urban distribution wire and cable	3	(D)	(D)	3	(D)	(D)
3357B 73	Polyethylene covered exchange area and toll cable (PIC and PULP insulated)	7	283,302	1,004,244	8	297,067	983,719
3357B 90	Other telephone and telegraph wire and cable	8	(D)	(D)	7	(D)	(D)
33578 --	Power wire and cable	24	267,344	1,561,193	25	r/ 266,342	r/ 1,487,776
33578 07	Paper insulated cable (all voltages, all types)	2	(D)	(D)	2	(D)	(D)
	Plastic and rubber insulated:						
	600 volts or less:						
33578 08	Portable welding cable	7	14,811	42,368	7	r/ 15,368	r/ 44,615
33578 17	Underground distribution cable (UD, URD)	8	7,470	297,569	10	7,443	274,393
33578 19	Thermoplastic insulated power cable	10	16,532	47,204	12	17,826	46,326
	Thermoset insulated:						
33578 20	Armored, rubber and cross linked	6	9,674	28,606	6	9,476	27,603
33578 21	Unarmored, rubber	6	34,712	136,482	7	34,609	129,145
33578 22	Unarmored, cross linked	8	11,230	34,528	9	14,904	40,098
33578 23	Rubber (R, RH, RHH, RHW, USE, etc.)	2	(D)	(D)	3	(D)	(D)
33578 25	Weatherproof cable	5	(D)	(D)	4	(D)	(D)
	Service drop cable:						
33578 27	Thermoset insulated	4	(D)	(D)	3	(D)	(D)
33578 28	Thermoplastic insulated	3	(D)	(D)	3	(D)	(D)
	Over 600 volts:						
33578 37	Underground distribution cable (UD, URD), all insulations (jacketed and unjacketed)	7	55,664	376,563	7	50,738	333,325

Table 2. Shipments of Copper Insulated Wire and Cable: 1997 and 1996
 [Shipments in thousands of pounds. Value in thousands of dollars]

Product code	Product description	Shipments, including interplant transfers 1/					
		1997			1996		
		No. of cos.	Copper content 2/	Value	No. of cos.	Copper content 2/	Value
33578 39	Thermoplastic insulated power cable, excluding underground	5	(D)	(D)	5	(D)	(D)
	Thermoset insulated power cable, excluding underground over 600 volts to 15 kV:						
33578 41	Armored, rubber and cross-linked	6	13,242	58,222	7	15,247	59,439
33578 42	Unarmored, rubber	7	48,897	160,618	7	48,176	187,249
33578 43	Unarmored, cross-linked	7	16,792	55,710	8	15,661	49,843
33578 44	Over 15 kV (rubber and cross-linked)	5	5,028	34,817	4	4,453	32,716
33578 50	Other power wire and cable	8	13,341	99,987	7	r/ 12,874	r/ 84,568
33578 6-	Portable power cable	7	19,700	70,573	8	r/ 24,311	r/ 95,276
33578 61	2 kV or less	6	(D)	(D)	8	r/ 16,273	r/ 67,051
	Over 2 kV:						
33578 62	Portable cross linked jacketed cable (mine shovel cable)	3	(D)	(D)	4	(D)	(D)
33578 63	Portable non-cross linked jacketed cable	33	(D)	(D)	2	(D)	(D)
3357C --	Control and signal wire	27	43,349	280,368	28	39,608	247,658
3357C 11	Signal wire and cable	16	16,584	155,996	17	14,813	132,092
	Control wire and cable, excluding elevator cable:						
3357C 14	Thermoset insulated	9	9,518	51,286	9	r/ 9,128	51,875
3357C 17	Thermoplastic insulated	18	17,247	73,086	18	15,667	63,691
3357D --	Building wire and cable	23	1,389,773	2,933,996	24	1,172,301	r/ 2,492,797
	Building wire and cable having underwriters' labels:						
	Thermoset insulated:						
3357D 37	Cross-linked polyethylene (XHHW)	12	43,102	129,196	13	r/ 45,994	r/ 111,589
3357D 38	Cross-linked polyethylene (USE)	11	17,521	57,480	10	r/ 19,198	r/ 51,488
	Thermoplastic insulated:						
3357D 40	Flame-retardant nylon (THHN, THWN)	17	813,346	1,538,579	16	621,538	r/ 1,254,588
3357D 49	Moisture and heat resistant (TW, THW)	12	3,979	8,479	12	r/ 4,224	r/ 8,484
3357D 51	Service entrance cable (SER, SEU, ASE)	8	8,212	109,570	8	8,694	97,610
	Nonmetallic branch-circuit and underground feeder:						
3357D 54	Type NM-B	6	395,131	784,940	7	363,851	677,933
3357D 55	Type UF and NMC (corrosion resistant)	8	42,810	91,183	9	40,425	82,535
3357D 57	Metallic armored cable (all AC types)	10	56,085	184,773	10	49,653	164,368
3357D 58	Other building wire and cable	10	9,587	29,796	10	18,724	44,202
33576 --	Apparatus wire and cordage 3/	45	210,627	810,254	45	209,566	812,295
	Flexible cordage:						
33576 13	Thermoset insulated	10	13,894	65,953	9	r/ 10,935	r/ 46,597
33576 15	Thermoplastic, including thermoplastic elastomers	16	31,255	64,074	15	r/ 30,692	62,866
33576 42	Extension cord sets	9	26,441	113,930	9	30,056	130,082
33576 43	Fixed power supply cords	18	20,515	143,825	18	22,718	167,559
33576 44	Detachable power supply cords	6	8,937	52,948	6	r/ 8,964	r/ 54,084
33576 47	Retractable power cords and other	9	752	14,515	9	647	12,818
	Apparatus wire:						
33576 21	Appliance fixture wire	19	32,686	101,801	19	r/ 32,071	r/ 96,578
	Appliance wiring material 14 gauge and larger, including motor lead and transformer lead wire:						
33576 23	Thermoset insulated	4	(D)	(D)	4	(D)	(D)
33576 24	Thermoplastic insulated	9	34,477	78,086	9	34,192	75,910
33576 28	Submersible pump cable	7	(D)	(D)	8	(D)	(D)
33576 29	Other apparatus wire and cordage, including tool wire	16	21,577	78,536	16	19,475	73,957
3357E --	Other insulated wire and cable	40	142,215	539,779	40	r/ 149,509	469,657
	Automotive:						

Table 2. Shipments of Copper Insulated Wire and Cable: 1997 and 1996
 [Shipments in thousands of pounds. Value in thousands of dollars]

Product code	Product description	Shipments, including interplant transfers 1/					
		1997			1996		
		No. of cos.	Copper content 2/	Value	No. of cos.	Copper content 2/	Value
3357E 72	Bulk automotive primary wire	11	84,563	206,899	12	r/ 81,214	r/ 186,077
3357E 74	Bulk battery cable	7	14,582	36,002	7	r/ 12,724	r/ 34,598
3357E 76	Bulk ignition wire	6	(D)	(D)	6	(D)	(D)
3357E 78	Other automotive wire and cable	6	(D)	(D)	7	(D)	(D)
	Airframe, shipboard and ground support cable, excluding coaxial cable and ignition cable:						
3357E 79	Airframe and missile, including ground support cable	10	4,159	40,828	8	4,166 a/	29,935
3357E 81	Shipboard cable	5	3,671	36,620	6	3,808	31,013
3357E 98	Other insulated or covered wire and cable, n.e.c.	20	24,363	106,090	21	r/ 36,870	91,073

D Withheld to avoid disclosing data for individual companies. NA Not available. n.e.c. Not else where classified. pt. Part. r/Revised by 5 percent or more from previously published data.

1/Interplant transfers for 1997 totaled \$44,010 and for 1996 totaled \$31,505.

2/Aluminum content for 1997 totaled 679,912 thousand pounds and for 1996 totaled 640,975 thousand pounds. See Table 3 for additional details.

3/Data include the following: a) all known establishments which insulate wire and cable and then fabricate it into finished products, (SIC product class 33576) and (b) establishments from product class 36996, that manufacture wire, cord, and flexible cord sets from purchased insulated wire.

Note: The data presented in this table are for copper content insulated wire and cable. See Table 3 for aluminum content information. The percent of estimation of each item is indicated as follows: a/10 to 25 percent of this item is estimated.

Table 3. Shipments of Aluminum Insulated Wire and Cable: 1997 and 1996
 [Quantity in thousands of pounds. Value in thousands of dollars]

Product code	Product description	1997			1996		
		No. of cos.	Gross weight	Value	No. of cos.	Gross weight	Value
3357- pt.	Insulated wire (except magnet wire)	(X)	679,912	3,962,426	(X)	640,975	3,891,547
3357A --	Electronic wire and cable.	4	(D)	(D)	4	(D)	(D)
33578 --	Power wire and cable.	9	325,733	1,790,548	9	r/ 313,963	r/ 1,713,554
33578 17	Underground distribution cable, all insulations 600 volts or less.	5	152,037	286,564	5	142,803	261,950
33578 27	Service drop cable, thermoset insulated.	3	34,826	64,317	3	34,584	62,546
33578 28	Service drop cable, thermoplastic insulated.	2	(D)	(D)	2	(D)	(D)
33578 37	Underground distribution cable,all insulations-- over 600 volts.	6	60,087	408,063	6	52,047	360,975
33578 42	Thermoset insulated power cable, unarmored, rubber -- over 600 volts to 15 kV.	5	(D)	(D)	4	(D)	(D)
33578 43	Thermoset insulated power cable, unarmored, cross-linked--over 600 volts to 15 kV	3	(D)	(D)	3	(D)	(D)
3357D --	Building wire and cable.	5	62,940	735,031	6	59,353	759,343
3357D 38	Thermoset insulated, cross-linked polyethylene (USE).	3	(D)	(D)	3	(D)	(D)
3357E --	Other insulated wire and cable.	2	(D)	(D)	2	(D)	(D)

D Withheld to avoid disclosing data for individual companies. pt. Part
 r/Revised by 5 percent or more from previously published data. X Not applicable.

Table 4. Shipments of Copper Magnet Wire, Including interplant transfers: 1997 and 1996
 [Gross weight in thousands of pounds. Value in thousands of dollars]

Product code	Product description	Shipments, including interplant transfers 1/					
		1997			1996		
		No. of cos.	Gross weight 1/	Value	No. of cos.	Gross weight 1/	Value
33577 --	Magnet wire.	(NA)	728,002	1,214,980	(NA)	728,631	1,238,581
33577 1-	Class 105.	(NA)	49,604	67,122	(NA)	52,545	78,150
33577 11	7 Awg and larger round (also all square and rectangle).	5	7,118	11,056	6	7,842	13,332
33577 13	8 to 21 Awg inclusive.	5	32,151	37,964	7	31,753	40,763
33577 15	22 to 32 Awg inclusive.	6	9,105	13,502	7	11,824	20,109
33577 18	33 to 44 Awg inclusive.	5	1,230	4,600	7	1,126	3,946
33577 2-	Class 130 and 155.	(NA)	129,840	272,539	(NA)	132,267	281,788
33577 20	7 Awg and larger round (also all square and rectangle).	1	(D)	(D)	3	(D)	(D)
33577 22	8 to 21 Awg inclusive	12	26,283	45,053	11	26,384	45,498
33577 24	22 to 32 Awg inclusive.	15	81,338	155,292	14	84,126	165,356
33577 28	33 to 44 Awg inclusive.	11	(D)	(D)	11	(D)	(D)
33577 4-	Class 180 and higher.	(NA)	481,322	727,401	(NA)	471,392	729,081
33577 40	7 Awg and larger round (also all square and rectangle).	7	38,510	72,001	8	37,061	68,941
33577 42	8 to 21 Awg inclusive.	12	290,999	389,303	13	279,883	379,535
33577 44	22 to 32 Awg inclusive.	11	125,648	207,357	14	121,422	211,833
33577 48	33 to 44 Awg inclusive.	9	(D)	(D)	9	6,560	28,437
33577 90	Miscellaneous film coated, n.e.c.	1	(D)	(D)	4	(D)	(D)
33577 pt.	Non film coated(fibrous and tape).	(NA)	32,440	82,335	(NA)	31,585	75,160
33577 81,83	Class 130 and below.	5	16,908	45,973	5	17,211	41,154
33577 85,87	Class 155 and above.	5	(D)	(D)	7	(D)	(D)
33577 88	Miscellaneous non-film coated, n.e.c.	1	(D)	(D)	2	(D)	(D)

D Withheld to avoid disclosing data for individual companies. NA Not available.
 n.e.c. Not elsewhere classified. pt. Part.

1/Interplant transfers for 1997 totaled 40,548 thousand pounds and 1996 totaled 53,364 thousand pounds of copper.

Table 5. Aluminum Shipments of Magnet Wire, Including Interplant Transfers: 1997 and 1996
 [Aluminum gross weight in thousands of pounds. Value in thousands of dollars]

Product code	Product description	Shipments, including interplant transfers 1/					
		1997			1996		
		No. of cos.	Gross weight	Value	No. of cos.	Gross weight	Value
33577 --	Magnet wire.....	15	63,069	132,559	13	59,304	120,394
3577 pt.	Film coated.....	14	54,452	118,728	13	51,373	107,813
3577 1-	Class 105.....	5	(D)	(D)	5	(D)	(D)
3577 2-	Class 130 and 155	12	(D)	(D)	13	(D)	(D)
3577 4-	Class 180 and higher.....	9	32,188	71,691	12	30,150	r/ 66,709
3577 pt.	Other types of magnet wire (non film coated; insulated magnet sheet, strip, and foil; and film coated, 45 AWG and finer).....	5	8,617	13,831	5	7,931	12,581

D Withheld to avoid disclosing data for individual companies.
 pt. Part. r/Revised by 5 percent or more from previously published data.

1/Interplant transfers for 1997 totaled 6,143 thousand pounds of aluminum and for 1996 totaled 7,075 thousand pounds of aluminum.

Table 6. Value of Shipments of Fiber Optic Cable: 1997 and 1996
 [Thousands of dollars]

Product code	Product description	1997		1996	
		No. of cos.	Value	No. of cos.	Value
33579 --	Insulated optical fiber cable.....	37	1,851,613	38	1,727,980
33579 pt.	Communication applications.....	25	1,814,445	26	1,682,267
	Single-mode stepped-index:				
33579 12	Dispersion shifted.....	11	(D)	9	(D)
33579 13	Dispersion unshifted	14	1,613,647	15	1,492,955
33579 14	Multi-mode stepped index.....	5	(D)	6	(D)
33579 15	Multi-mode graded index	19	200,798	19	189,312
33579 21	Other applications.....	15	37,168	16	45,713

D Withheld to avoid disclosing data for individual companies.

Table 7. Value of Shipments of Optical Fiber: 1997 and 1996
 [Thousands of dollars]

Product code	Product description	1997		1996	
		No. of cos.	Value	No. of cos.	Value
	Optical fiber for data and non data transmission	25	1,209,672	26	1,030,821
32318 95	Optical fiber used for data transmission.....	16	1,162,257	17	946,092
32318 97	Optical fiber used for non data transmission.....	14	47,415	14	84,729