34 Synthetic resins and plastics materials and synthetic rubber

This Report on the Synthetic Resins and Plastics Materials and Synthetic Rubber Industry relates to establishments engaged wholly or mainly in manufacturing synthetic resins and plastics materials in the form of solid and liquid resins, latices, solutions, dispersions and emulsions, moulding and extrusion compounds, foam, non-decorative sheet, laminated sheet (including decorative), film, rods and tubes and profile shapes. Glass fibre sheet and transparent regenerated cellulose film are included. Unformulated synthetic resin adhesives are included but formulated synthetic resin adhesives (ie containing additives such as solvents, plasticisers, etc) are excluded. The production of textile fibres from plastics materials, plastics mouldings, castings or extrusions produced from these synthetic resins and plastics materials, articles cut from plastics sheet and plastics floor-coverings and decorative plastics sheet (other than laminated thermosetting sheet) are also excluded.

This Report corresponds to minimum list heading 276 in the Standard Industrial Classification (Revised 1968) which has been used for the first time as a basis of classification in the 1968 Census.

The industry corresponds to the Synthetic Resins and Plastics Materials Industry (Part 34) in the Reports on the last detailed Census of Production, except for the inclusion of transparent regenerated cellulose film previously included in the Miscellaneous Manufacturing Industries (Part 125) and synthetic rubber and silicones previously included in General Chemicals (Part 27).

Throughout this Report, the figures given for 1963 have been reclassified, as far as possible, according to the Standard Industrial Classification (Revised 1968) so that data for 1963 and 1968 are on the same industrial basis. However the reclassification of small firms which provided limited information only, has been arbitrary.

TREATMENT OF FABRICS BACKED WITH PLASTIC FOAM AND FABRIC TO FABRIC BONDED MATERIALS

Sales of fabric backed with plastic foam and fabric to fabric bonded materials are shown as principal products of the same industry as the main fabric rather than that of the material used for the backing, bonding or lining. Thus where the main fabric is cotton, linen and man-made fibres, woollen or worsted, or knitted fabric the sales are shown in the Table 5 of the Reports on the Weaving of Cotton, Linen and Man-made Fibres Industry (Part 100), Woollen and Worsted Industry (Part 101) and Hosiery and Other Knitted Goods Industry (Part 104) respectively. Total sales of all fabric backed with foam and fabric to fabric bonded materials, reported in the census together with those reported by textile converters in a separate inquiry, are brought together in a supplement to Table 5 in the report on the Weaving of Cotton, Linen and Man-made Fibres Industry (Part 100).

Sales of fabric backed with plastic foam and fabric to fabric bonded materials were not taken into account in classifying returns to the three textile industries in which they are shown. Where fabrics were foam backed or bonded on commission, returns reporting doing this work were classified to the Textile Finishing Industry (Part 110).

METHOD OF CLASSIFICATION

The classification of returns to this industry followed the standard procedure as outlined in the notes on page (i), except for the special treatment of fabric backed with plastic foam and fabric to fabric bonded materials referred to above. The classification of returns to sub-divisions of the industry also followed the standard procedure.

In interpreting the data in the tables it is essential to bear in mind the notes and definitions which appear on pages (i) to (iv).

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- (c) Including services rendered to other organisations (amounts charged for hiring out plant, machinery or other goods, for providing transport, or for technical or other services rendered).
- (d) Administrative, technical and clerical employees.
- (e) Excluding expenditure for establishments not yet in production.
- (f) Acquisitions <u>less</u> disposals.

TABLE 1 Industry summary, 1963 and 1968
United Kingdom (a) (b)

			Umid	All establ	shments
		and and and the last of the la	Unit	1963	1968
1110	3 MIN / 1991	Therefore Amelian page same demo	No.	173	249
Number of chicago		during the output	н	218	310
Number of establishments		The state of the s	£.000	254,765	477,443
Gross output		000°2. BEDAM over vectors phree	n	103,868	197,059
Net output		Hg 65	£	2,460	3,461
Net output per head	,	goods produced and work done (c)	£.000	243,224	448,956
Sales and work done	87.8	merchanted goods and canteen takings	Ħ	10,455	26,067
	180.1	materials for use in production and packaging and fuel	н	138,628	245,822
Purchases	2,60	goods for merchanting and canteen purchases	н	9,233	22,994
	STELS	for work done on materials given out	п	650	5,784
numerts to other	383.8	for transport by road	*	3,524	7,773
	3.810	by rail and other means excluding postal services	. 88		675
Stocks and work in progre	ess	(68,844 477,443(6) 197,058(6)	01	+ 2,224	+ 5,083
Total stocks and work i	in	change during year at end of year	н	33,980	69,999
		change during year	п	+ 1,094	+ 1,660
Goods on hand for sale		at end of year		17,463	39,315
		change during year	Ħ	- 8	+ 760
Work in progress		at end of year		3,788	6,023
			-	+ 1,138	+ 2,663
Materials, stores and	fuel	change during year at end of year	п	12,730	24,660
		The state of the s	Th.	42.2	56.9
W 1 1 1 - 1 0	0.00	total, including working proprietors	п.	tal fue	34.5
Number employed on avera	Re	operatives	n	26.0	22.2
		other employees (d)	01000		
Wages and salaries		of operatives	£,000	21,746	39,536
mayor and bandrios		of other employees (d)	1	17,121	32,659
Capital expenditure (e)				and-dayler in a	proper the
Total		ace see may different in the s	"	21,933	38,225
New building work				2,651	5,387
Land and existing buil	ldings		n ,	319	440
Plant and machinery (f)		n Ju	18,654	31,662
Vehicles (f)			н	309	736

- (a) For 1968, estimates for establishments not making satisfactory returns and for small establishments, from which only employment data were collected, accounted for 4 per cent. of the total figures in which they were incorporated: of this, unsatisfactory returns accounted for 1 per cent. For 1963 the comparable figures were 3 per cent. and less than 1 per cent. respectively.
- (b) The following information relates to small establishments (employing fewer than 25 persons) in this industry. It includes an estimate for small establishments not making satisfactory returns.

	1963	1968
Number of establishments	116	172
Average number employed:		
Working proprietors	155	156
Other persons employed	1, 111	1,712

Footnotes continued on page 34/2.

TABLE 2 Analysis by size of establishment within the industry, 1968

(i) Output and employment

All establishments: United Kingdom

Number employed on average during the year by the establishment (a)	Estab- lish- men'ts	Enter- prises (b)	Total number employed on average during the year (a)	Gross output	Net output	Net output per head
1-5	Number 41	Number 41	Number 124	£,000	£'000	£
6-10	28	28	211	A Maria		
11-24	73	67	1,297			
25-49	23	23	883	6,649	2,460	2,786
50-99	28	25	2,024	19,606	5,802	2,867
100-299	39	35	6,604	69,317	26,996	4,088
300-399	8	8	2,804	27,544	8,872	3,164
400-499	4	4	1,825	12,604	4,759	2,607
500-749	8	7	5,014	51,155	19,446	3,878
750-999	4	4	3,286	22,636	9,768	2,973
1,000-1,499	6	6	7,493	41,711	19,798	2,642
1,500-1,999	4	4	6,632	57,767	22,472	3,388
2,000 and over	6	4	18,140	150,126	69,116	3,810
nsatisfactory returns	38	36	607		00,110	3,010
Total	310	249	56,944	477,443(c)	197,059(c)	3,461(c)

(ii) Employees, wages and salaries

All establishments: United Kingdom

year by the establishment (a) 1-5 6-10 11-24	Operatives Number	Others (d) Number	Operatives	Others (d)	Oper- atives	Others (d)
6-10	Bee W		£'000	01000		
25-49 50-99 100-299 300-399 400-499 500-749 750-999 1,000-1,499 1,500-1,999	563 1,323 4,380 1,577 1,069 2,668 2,125 4,570 4,228	296 690 2,214 1,227 756 2,346 1,161 2,923	547 1,318 4,754 1,915 1,175 3,030 2,196 5,405	£'000 400 954 3,373 1,646 1,071 2,999 1,697 3,702	£ 971 996 1,085 1,214 1,099 1,136 1,034 1,183	£ 1,350 1;383 1,523 1,341 1,417 1,278 1,462 1,266
2,000 and over insatisfactory returns Total	10,747 34,522(c)	2,404 7,392	5,266 12,486	3,920 11,717	1,246 1,162	1,630 1,585

(a) Including working proprietors.

(d) Administrative, technical and clerical employees.

Percentage analysis of employees, by age and TABLE 3 sex, 1969 (a)

All establishments: United Kingdom

Ages	Males	Females	All employees
	Per cent.	Per cent.	Per cent.
Under 18	1	1	2
18 and over	83	15	98
All ages	84	16	100

Source: Department of Employment

(a) The percentages relate to the numbers employed (excluding working proprietors) at June 1969, the earliest date for which the information is available on the basis of the Standard Industrial Classification, (Revised 1968).

Footnotes to Table 4.

- (a) Some establishments employing fewer than 25 persons were included in returns for larger establishments. These amounted to 7 establishments in 1968 and 11 in 1963.
- (b) The method of classifying returns to sub-divisions of the industry is explained in the notes; the characteristic products of each sub-division are identified in Table 5.
- (c) The sum of the figures for the sub-divisions exceeds the total for the industry to the extent that enterprises made returns for more than one sub-division.
- (d) Including services rendered to other organisations (amounts charged for hiring out plant, machinery or other goods, for providing transport, or for technical or other services rendered).
- (e) Direct sales of goods (excluding canteen takings) made to, and work done for, the general public by larger establishments are included. These amounted to £41,000 in 1968. Similar information is not available for 1963.
- (f) Characteristic products relate only to sub-divisions of the industry.
- (g) For sub-divisions of the industry, this is the ratio of sales of characteristic products to total sales of goods produced and work done. For the industry as a whole, this is the ratio of total sales of principal products by the industry to total sales of goods produced and work
- (h) Administrative, technical and clerical employees.
- (i) Excluding expenditure for establishments not yet in production.

⁽b) The sum of the figures for the size groups exceeds the total for the industry to the extent that enterprises made returns for establishments in more than one

⁽c) Including estimates for establishments employing fewer than 25 persons and for establishments not making satisfactory returns.

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TABLE 4 Analysis of larger establishments, 1963 and 1968 Establishments employing 25 or more persons: Analysis of returns received, United Kingdom (a)

		ana cpannin		visions of dustry (b)
Amount of the Con-		Unit	Transparer	nt regenerate lose film 11
80 87	SO THE STATE OF TH		1963	1968
Number of enterprises (c)		No.	5	3
Number of establishments		11	8	5
Gross output		£'000	30,344	38,896
Net output		11 21	16,068	18,577
Net output per head		£	2,170	2,783
Sales and work done	goods produced and work done (d)(e) merchanted goods and canteen takings	£'000	30,083	38,658
Sales of characteristic pro	oducts	п	27,754	34,232
Index of specialisation (g)	THE RESERVE	Per cent.	92	91
Purchases	materials for use in production and packaging, and fuel	£,000	14,172	19,911
	goods for merchanting and canteen purchases	"	E0.	13,311
	for work done on materials given out	44	59	1
	for transport	"	1	5
Payments to other organisations	by road	"	1	
	by rail and other means excluding postal services		160	317
Stocks and work in progress		n	J	
	change during year	п	+ 242	+ 110
Goods on hand for sale	at end of year	,		110
	change during year		1,675	2,001
Work in progress	}	"	- 50	+ 118
	L at end of year	"00	453	697
Materials, stores and fuel	change during year	п	+ 114	- 86
4985 and 11 tm 1863.	at end of year	"	1,798	1,854
	total, including working proprietors	No.		
lumber employed on everage during the year	operatives	"	7,404	6,675
John Jour	other employees (h)		5,014	4,679
	Control of the contro	"	2,387	1,996
ages and salaries	of operatives	£'000	4,053	5,483
	of other employees (h)	н	2,312	2,476
ages and salaries per head	operatives	£	808	
	other employees (h)	~		1,172
apital expenditure (i) New building work	man eyen's appendion, on a line of the lines		968	1,241
Land and existing building	acquisitions	£,000	327	262
- and existing building	disposals	"	1	4
about to seles into to a	double of the William Religion of the Control of th	"	5	7
Plant and machinery	acquisitions	п	1,778	1,768
	L disposals	п	9	9
Vehicles	acquisitions	"		
The last too be too be to be t	disposals	and som	46	145
For notes to this table - s		"	17	32

Sub-divisions of the industry (b) Total Other synthetic resins and plastics materials 12 Synthetic rubber 20 1968 1963 1968 1968 1963 1963 69 85 62 138 113 5 128 4 101 459,718 22,653 40,166 247,849 194,852 380,656 189,743 101,048 8,179 15,397 76,801 155,770 3,461 2,460 5,399 7,977 3,370 2,388 432,289 236,622 21,861 357,032 184,678 40,398 25,099 10,171 699 9,402 21,299 (f) (f) 35,567 21,804 318,602 172,349 93 95 100 93 236,696 13,449 134,865 196,713 107,245 23,900 8,982 22, 140 749 8,174 18,311 5,569 633 29 5,535 632 7,485 6,389 256 974 3,429 3,013 650 454 + 1,064 + 1,598 121 215 + 1,694 702 16,989 37,856 32,544 1,873 3,311 13,441 + 732 70 630 28 17 218 367 3,685 5,799 4,736 3,014 + 1,107 + 2,564 133 + 2,518 20 + 1,013 12,384 23,745 20,114 1,036 1,777 9.551 46,225 1,515 1,930 41,074 54,830 32,155 1.059 25,399 33,331 927 19,458 27,593 21,452 12,679 18,585 588 871 15,654 16,372 31,288 1,400 21,241 38,172 817 13,672 27,691 730 1,364 16,714 31,532 841 1,134 881 1,322 836 1,145 1,078 1,490 1,242 1,566 1,068 1,470 2,023 4,790 230 135 2,579 5,187 344 504 42 387 507 71 76 77 84 14,010 27,217 2,828 2,034 18,617 31,019 446 520 14 469 533 371 813 21 33 438 991 107 240 13 10 137

TABLE 5 Sales of principal products of the industry by larger establishments, including sales by establishments classified to other industries, 1963 and 1968

Establishments employing 25 or more persons: Analysis of returns received, United Kingdom

Industry sub-		1	963	Andrew with	196	8	N PACE
division (a)	threat the same of	Quantity	Value	Quantity	Value	Enter- prises	Entries
12	Synthetic resins: thermosetting	Th. tons	£'000	Th. tons	£'000	Number	Number
	Alkyds (including styrenated alkyds) and unsaturated polyesters		ESS Many Argum Alpaca	6861	8,8843		
	Solid and liquid resins (including solutions, emulsions and dispersions)	25.1	6,865	42.4	9,287 1,017	} 27	30
Mar Miles Not Miles Not Miles	Unsaturated polyester resins (excluding pre-impregnated glass cloth and mat)	13.1	3,587	30.2	5,851 1,065	} 17	17
Acomb and	Aminoplastics (melamine and urea formaldehyde)		1572-41 F	a. LE we	acd0vHd		
String of	Alkylated resin solutions (actual weight including solvent)	7 593	-8E	10.8	1,862	*	*
Takan ole	Solid and liquid resins and solutions (actual weight including solvent)	49.6	4,694	57.2	4,229	6	6
Perchange	Phenolics and allied products: straight and modified resins (includ- ing solutions, emulsions and dispersions)	19.0	3,726	26.0	4,646	15	16
Paymental	Epoxide resins		ſ	9.3	5,204	11	
	Polyurethane rigid foam compositions		3,422(b)	3.0			11
Blooks us	Other synthetic resins: thermosetting (c)	4.2	1,195 299	12.0	583 3,903 2,747	5 21	5 22
	Total synthetic resins: thermosetting	128	23,787	19.1	40,393		.837°
12	Synthetic resins: thermoplastic				10,000		
	Cellulose plastics	199			4,736	1 40	
	Cellulose ester and ether sheet, film (including photographic film base), foil, rod, tube and profile shapes	> 11.3	6,870	{ 8.6	6,721] 6	8
revene da	Cellulose ester moulding and extrusion compounds			4.4	923	*	*
	Styrene polymers and copolymers			11 1990	19111		
	Non-toughened straight resins, moulding and extrusion compounds	33.1	4,082	44.3	E 650		
dante inch	Toughened grades of resins, moulding and extrusion compounds	26.9	5,422	76.2	5,653	9	11
May bell	A.B.S. (acrylonitrile-butadiene- styrene) polymers		(d)		11,599	10	11
Land soil	Solutions, emulsions and dispersions (net resin content); expandable polystyrene; copolymer resins and non-toughened copolymer moulding	38	(α)		5,930	8	9
	and extrusion compounds (containing at least 50 per cent. net weight of styrene)	14.0	3, 182	29.7	6,146 1,524	21	25

TABLE 5 (continued)

dustry	8961	19	63		1968	e ly	Todaste
sub- vision (a)		Quantity	Value	Quantity	Value	Enter- prises	Entries
121	Industribucions resessantes dell'access tiles	Th. tons	£'000	Th. tons	£,000	Number	Number
12	Synthetic resins: thermoplastic (continued)		ber gurrus	parado dess	bus bestund	and a	
	Polyolefins: granules, moulding and extrusion compounds		nede Juno S	mates), and	mai valen Sulka haa soilaa	92 33 d9	22
	Polyethylene (including copolymers with ethylene as a major constituent)	6-65	a houseasses	Sotemane (on gaibles tende Offa		
	Low density	200	29,491	262	30,466	14	16
	High density] 200	20, 101	54.3	9,095	8	8
	Polypropylene (including copolymers with propylene as a major constituent)	12.7	2,424	60.0	12, 165	8	9
	Polyvinyl acetate: solutions, emul-		abeticane nec	r sudice of	ivarian sol	Mar 17	
	sions and dispersions (net resin content excluding plasticiser)		1.000.000		Correction 12	14 kg ()	
	Polymers		[21.3	4,695	13	13
	Copolymers containing over 50 per	28.5	5,767	and built and h		65	
	cent. vinyl acetate	J	man i kango	15.1	3,015	7	7
	Polyvinyl chloride polymers and copolymers (including the net resin	sta redica	art bu (book) y na i Damendan	ridus felt- ra eleganda	esi bana mili sepango jaga		
	content of latices)	118	13,425	218	23,947	*	*
	Rosin ester gums		. Ogastig i	as toroquia	959	5	5
	Coumarone-indene resins (including the net resin content of solutions, emulsions and dispersions)		(d) {	$\left\{\begin{array}{cc} 2.0 \\ & \cdot \cdot \end{array}\right.$	179 318	} 5	5
	Acrylics: moulding and extrusion compounds; cast sheet, rod and tube; the net resin content (excluding plasticiser) of solutions, emulsions and dispersions	1-1	raein inienr) d. estrueis	recreation to the la gains the la gains	n enorman al garkein kan rann beniolisa abgoogs	10 1	
	Polymers	h l	have been de	29.0	12,263	16	18
	Copolymers containing less than 50 per cent. vinyl acetate	25.5	10,933	less in belo	2,581	*	5
	Other synthetic resins: thermoplastic (e)	84.8	35,867 {	26.7	22, 259 43, 559	} 27	33
	Total synthetic resins: thermoplastic		117, 463	x iw boblac	205, 438	h	
12	Plastics materials other than synthetic resins: thermosetting		ozamyi	egao lius as	erelog ens	V28	
	Alkyds (including styrenated alkyds) and unsaturated polyesters: moulding and extrusion compounds (including	8.6			da bensilgi tenda red	0	
	dough moulding compounds but exclud- ing pre-impregnated glass cloth and mat)	1.4	. 511	plastics m	faself solito	_	
	Aminoplastics (melamine and urea	1.4	, 511	blingly	1,099	5	6
	formaldehyde): moulding and extrusion compounds	29.5	5, 268	30.5	5,509	satsia *	*
	Laminated thermosetting sheet (excluding polyester laminates)		To a second	A DECEMBER OF	cade atdi	aneig	
	Decorative	12.0	6,829	20 · 2	9,599	} 12	12
	* 1 zez.or 1 a.25 czc.r			The Land of Lond	1,560	THE PROPERTY OF	

Continued on next page.

TABLE 5 (continued)

Industry sub-	stand 1988 for a report of the first page	to deather	1963	car received	1968				
division (a)	Name Countity Value print	Quantity	Value	Quantity	Value	Enter- prises	Entri		
12	Plastics materials other than synthetic resins: thermosetting (continued)	c Th. tons	£'000	Th. tons	£'000	Number	Numb		
	Laminated and cast thermosetting rods tubes and profile shapes (excluding polyester laminates), and cast sheet		1,389	0.3	713	*	*		
	Phenolics and allied products			ebale	undo no laur	120			
	Moulding and extrusion compounds	28.3	5, 105	30.9	5,764	8	8		
	Cast sheet, rod, tube and profile shapes		(d)	1.6	661	*	*		
	8 5 1 1 20 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.02	1	1	180.80	17			
	Total plastics materials other than synthetic resins: thermosetting	- 12.27	23,634	a thuloni; e	30,576		1		
12	Plastics materials other than synthetic resins: thermoplastic	100.5	lowe said	ate: "adla i	toba ⁸¹ lenivy	109			
-81	Polyethylene (including copolymers with ethylene as a major constituent)	13-6	4,339 625	20.5	5, 221 3, 683	22	32		
7	Polypropylene (including copolymers with propylene as a major constituent)	38.6	iog 03 10	odtsining ov	enservious tyniv				
	Film and lay-flat tubing (excluding bags, wrappers etc made from film)		riner inc	eldo police	4,953	5	6		
а	Sheet (over 10 thous), rod, tube and profile shapes (excluding moulded or fabricated goods)	0.3	159 <	3.3 (2003	103 10180 ldot	109	O		
	Polyvinyl chloride and copolymers	7	natibalda.	Aginsi s	277	7	7		
	Solutions and dispersions, excluding latices (net resin content excluding plasticiser)	1.1	417	lisporatous) ding and es	to the later than	*			
12 1	Plasticised moulding and extrusion compounds	68.8	11,865	100	361	elq l	*		
ar	Plasticised unsupported sheet and film not printed or embossed ie	a.ac J		126	21,318	16	17		
8	non-decorative	12.6	4,095 {	13.0	3, 273	11	12		
86	Rigid sheet and unplasticised film	7.8	1, 1170	$\left\{\begin{array}{cc} 8 \cdot 1 \\ & \cdot \cdot \end{array}\right]$	4,531 1,298	8	9		
	Rigid rod, tube and profile shapes (excluding moulded or fabricated goods)] ""	4, 164	3.6	1,402	10	10		
	Styrene polymers and copolymers		Jadinus las	di testio ele	1,485	E Plan			
. 111	Toughened sheet	3.9	1,178	7.2	2 140	*	*		
	Other sheet	0.5	584	asergia join	2, 146	*	*		
	Total plastics materials	20.5	garanino) Whalooppool	000	ias			
70	other than synthetic resins:	b.E.	27,427	assis belong	54,709	ini tia			
12	Alginates		olwani (a entre les	8011881000	UIA Y			
12	Glass cloth or mat pre-impregnated and glass fibre sheet	2-32	(d) {	3.5	2,453	*	*		
	Synthetic resins and plastics materials (other than alkyds and unsaturated polyesters) unclassified (f)	0.61		n sortiesder Lynarer/laki	1,635	*	*		
	dictassified (f)	5.3	7,959	42.9	10,595	*	*		

ABLE 5 (continued)

		19	63	C namoles	1968		
Industry sub- division	yels of returns received, United Kingdom	Quantity	Value	Quantity	Value	Enter- prises	Entries
(a)	Transparent regenerated cellulose film	Th. tons	£'000	Th. tons	£,000	Number	Number
11	(including film laminated to plastic), in sheets or rolls	1,214	28,947	1,522	34,111	*	6
20	Synthetic rubber	122	23,634	217	37,863	9	10
20	Other products including silicones	Shutona .	4,759	, units	8,473	31	32
	Waste products		417	cabiptin by	696	18	22
	Work done on commission, sub-contract work, etc		651		833	13	14
	Total		258,679	ya Saawson neksaki	427,773	Side dam	uskods0.
	Sales in other industries (see Table 6)		33,863	183 deods	33,774	intee es	Cellulo Sulcail
	Principal products of this industry sold by establishments in the industry	1.8	224,816	r (no los es empount no except arem	394,000	91	120(g)

(a) The number given is that of the sub-division of which the item is a characteristic product. The sales shown are total sales by larger establishments, not merely sales by establishments classified to the sub-division.

(b) Revised figure.

(c) Including plastics materials other than synthetic resins: thermosetting.

(d) Not recorded separately for 1963.

(e) Including plastics materials other than synthetic resins: thermoplastic.

(f) Alkyds and unsaturated polyesters were not specifically excluded for 1963.

(g) This figure represents the total number of returns made for larger establishments in this industry which is less than the total number of establishments shown in Table 4 on account of combined returns covering more than one establishment.

TABLE 6 Sales of principal products of the industry by larger establishments classified to other industries, 1963 and 1968

Establishments employing 25 or more persons: Analysis of returns received, United Kingdom

	1	963	The same of the sa		1968	
Teganic Thermony Thermony Termony Term	Quantity	Value	Quantity	Value	Entrie	Principal industries in which produced (a)
Synthetic resins: thermosetting	Th.tons	£'000	Th. tons	£'000	Number	100°
Alkyds (including styrenated alkyds) and unsaturated polyesters	13.3	2,834 {	6.4	1,631 633	} 18	32,35,37,38
Epoxide resins	4.1	2, 116	0.8	436	5	27, 29, 38
Other synthetic resins: thermosetting	1.5	293		537	6	28,66,137,144
Synthetic resins: thermoplastic				30.		20,00,137,144
Cellulose ester and ether sheet, film (including photographic film base), foil, rod, tube and profile shapes and cellulose ester moulding and extrusion compounds	0.1	47	to a subs	182	*	30, 43, 149
Styrene polymers and copolymers (excluding toughened and other sheet)	42.2	6,392 {	0.9	135 177	9	(b)
Polyethylene (including copolymers with ethylene as a major constituent), granules, moulding and extrusion compounds	28.6	5,285	6.2	733	*	69, 131, 149
Polyvinyl acetate: solutions, emulsions and dispersions (net resin content excluding plasticiser)	13.9	1,696	10.7	1,482	7	28, 29, 32, 38
Other synthetic resins: thermoplastic	14.9	2,568	COLUMN SECUL	1,545	20	A BUIDGESSIE
Plastics materials other than synthetic resins: thermosetting	not about a	ers outlier). Not a Outlier I disk there	terimon la To rodum		20	24, 111, 144, 149
Laminated thermosetting sheet (excluding polyester laminates)		A (2014) 81	112 T	ran medal s	ros galu	
Decorative	1.5	735		495	8	131,137
Other	0.1	87	0.1	73	*	
Other plastics materials other than synthetic resins: thermosetting	1.5	475	1.9	657	5	29, 137, 149
Plastics materials other than synthetic resins: thermoplastic	10. 1			037	ð	29, 137, 149
Polyethylene (including copolymers with ethylene as a major constituent)		2,283		3,839	10	27,69,144,149
Polyvinyl chloride and copolymers					10	27,09,144,149
Plasticised moulding and extrusion compounds	1.2	191	9.0	1,520	5	70 75 140
Plasticised unsupported sheet and film not printed or embossed ie non-decorative	1.9	651	034	3,230	200	72,75,149
Rigid sheet, unplasticised film, rigid rod, tube and profile shapes (excluding moulded or fabricated goods)	0.8	285	027		5	38,145
Other plastics materials other than synthetic resins: thermoplastic				2,267	6	144, 145, 149
other than alkyds and unsaturated olyesters) unclassified		116		577	*	137,149
dict destilled		4,985	42.9	10,595	*	98

TABLE 6 (continued)

					A STATE OF THE STA	THE RESERVE OF THE PARTY OF THE
	19	63		ALL PARTY	1968	(18 roos
	Quantity	Quantity Value		Value	Entries	Principal industries in which produced (a)
congressed instructions of the	elise composi	£,000	Th. tons	£'000	Number	drather, my reeins
onthetic rubber	204404929498	438	0.6	101	*	33,35
ransparent regenerated cellulose film including film laminated to plastic)	ENDINGENE A	1,303	l	2,927	5	31,39,71
ther products including silicones		1,084			ller) "	() gallalbas
Total		33,863		33,774	4.000 (0.00 (0.00)	and the Laboure

⁽a) The references given are to the list of industries at the front of this report.

TABLE 7 Sales of other than principal products by larger establishments in the industry, 1963 and 1968

Establishments employing 25 or more persons: Analysis of returns received, United Kingdom

	1963	1968
8.862 0.853	Value	Value
	£,000	£'000
Linoleum, leathercloth, etc	357	4,462
Plastic goods	1,948	3,194
General chemicals	bas po	biwom , marway
Organic		13,676
Other	2,800	6,774
Paint	2,800	324
Other chemical products		2,574
Other goods	4,783	6,418
Services rendered to other organisations (a)	1,918	867
Total value of goods sold without having	s on hear 12 has	appeal heat the res
been subjected to any manufacturing process (merchanted or factored)	9,710	24,266
Canteen takings	462	833
Total	21,978	63,389

⁽a) Amounts charged for hiring out plant, machinery or other goods, for providing transport, or for technical or other services rendered to other organisations.

⁽b) Production is widely distributed.

TABLE 8 Production of certain principal products of the industry 1963 and 1968 (a)

All establishments in the United Kingdom

Doughtly Valva Camping Value English in which	1963	1968
	Quantity	Quantity
Synthetic resins: thermosetting	Th.tons	Th.tons
Alkyds (including styrenated alkyds) and unsaturated polyesters		
Solid and liquid alkyd resins (including solutions, emulsions and dispersions) (b)	98.6(c)	100.9(c)
Unsaturated polyester resins (including reactive monomer, but excluding filler)	13.7	33.5
Aminoplastics	514	
Alkylated resin solutions (d)	8.6	11.4
Solid resins	12.5	15.0
Other liquid resins and solutions (d)	74.2	101.6
Total aminoplastics	95.3	128.0
Phenolics and cresylics		
Straight liquid resins, including aqueous solutions and dispersions (e)	27.7	31.1
Straight resins, solid or inorganic solutions (f)	24.6	29.9
Modified resins, including those in solutions (f)	5.4	6.3
Total phenolics and cresylics	57.7	67.3
Epoxide resins (g)	4.9	8.4
Other, including casein plastics and rigid polyurethane foam compositions (f)	8.3	18.7
Total synthetic resins, thermosetting	278.5	356.8
Synthetic resins: thermoplastic		
Cellulose ester and ether sheet film, foil, rod, tube, profile shapes and photographic film base	7.6	10.4
Styrene polymers and copolymers:		
Non-toughened straight polystyrene resins, moulding and extrusion compounds	30.3	36.1
Toughened grades of resins, moulding and extrusion compounds	32.0	61.6
Copolymer resins and non-toughened copolymer moulding and extrusion compounds including styrene as a major constituent: expandable polystyrene; solutions, emulsions and dispersions (f)	11.7	29.6
Total styrene polymers and copolymers	74.0	127.3
Polyolefins; granules, moulding and extrusion compounds	14.0	127.0
Polyethylene	h (309.1
Polypropylene	195.0	62.8
Total polyolefins	195.0	371.9
and, take and profess assum to track as the same and		
Polyvinyl acetate including solutions and dispersions (h) Polyvinyl chloride polymers and copolymers	20.7	34.1
Rosin ester gums	NAMES OF THE OWNER	267.0
Other materials including products such as acrylics, cellulose ester moulding and extrusion compounds, coumarone-indene resins, solutions, emulsions and dispersions; polyamides;	200.7	4.7
polytetrafluoroethylene		72.8
Total synthetic resins, thermoplastic	498.0	888:2

TABLE 8 (continued)

ploying H5 or some paragons: Analysis of returns received, United Sin	1963	1968
	Quantity	Quantity
Plastics materials other than synthetic resins: thermosetting	Th.tons	Th.tons
Alkyds (including styrenated alkyds); moulding and extrusion compounds including dough moulding compounds	1.6	2.7
Aminoplastics: moulding and extrusion compounds	29.2	31.6
Laminated thermosetting sheet (excluding polyester laminates)	California i mart mart	Miles Lies.
Decorat ive	12.1	20.2
Other	10.9	9.2
Total laminated thermosetting sheet	23.0	29.3
Laminated thermosetting rods, tubes and profile shapes (excluding polyester laminates)	1.2	1.1
Phenolics and cresylics	O Libror	E1000
Moulding and extrusion compounds	30.8	34.5
Cast sheet, rod, tube and profile shapes	2.0	2.0
Total phenolics and cresylics	32.8	36.5
Total plastics materials other than synthetic resins: thermosetting	87.8	101.2
Plastics materials other than synthetic resins: thermoplastic	has been a	1338 Epster
Polyolefins (polyethylene and polypropylene)	1 930500	L QDIKO AN
Sheet, film and lay flat tubing	31.8	76.1
Rod, tube and profile shapes	1.5	2.3
Total polyolefins	33.3	78.4
Polyvinyl chloride	ravidusio Elever	lanks
Solutions and dispersions excluding latices (h)	3.2	4.7
Plasticised moulding and extrusion compounds	75.4	115.9
Plasticised film (0.010 inches thickness or less)	16.5	27.6
Plasticised unsupported sheet (above 0.010 inches thickness)	30.7	29.7
Rigid sheet and unplasticised film	6.2	8.6
Rigid rod, tube and profile shapes	5.8	7.9
Total polyvinyl chloride	137.8	194.4
Polystyrene sheet, toughened and other	5.2	3.5
Total plastics materials other than synthetic resins: thermoplastic	176.3	276.3

⁽a) The figures in this table are derived from short period returns and differ in average and timing from those shown in the rest of this report.

⁽b) Net resin content including oil but excluding solvent.

⁽c) Including 48,000 (revised figure) tons recorded by firms in the 1963 Census of Production, classified in the 1958 SIC to the Paint and Printing Ink industry and 35,000 tons in 1968 Census of Production by firms classified to the Paint industry.

⁽d) Actual weight including solvent.

⁽e) Actual weight including water.

⁽f) Net resin content.

⁽g) Net resin content excluding added non-active solvent and/or filler.

⁽h) Net resin content excluding plasticiser.

TABLE 9 Purchases by larger establishments of selected principal products of the industry 1968 (a)

Establishments employing 25 or more persons: Analysis of returns received, United Kingdom

	(T eng. 47	Syn	thetic res	ins and p	lastics m	aterials (ced plasti	excluding cs)	leatherel	oth	
Standard Industria Classi-		Polye	thylene an	d polypro	pylene	Polyvinyl chloride (including copolymers)				
Minimum List Heading	Purchasing industry (b)	and ex	, moulding strusion bounds	profile	od, film, e shapes ofilament	mers inc net resi of latices and disp plast moulding	and copoly- luding the n content s, solutions persions, icised and extru- ompounds	Plastic unplas sheet, f tube,	cised and sticised ilm, rod profile and foam	
	rented	Quant ity	Cost	Quant ity	Cost	Quant ity	Cost	Quant ity	Cost	
		Th.cwt.	£'000	Th.cwt.	£'000	Th.cwt.	£'000	Th.cwt.	£'000	
276	Synthetic resins and plastics materials and synthetic rubber	441	3,456 863	alma da aizta		$\left\{ \begin{array}{c} 1,021 \\ \cdots \end{array} \right.$	6,471 80			
279/2	Formulated adhesives, gelatine etc			\	(c) {	capita in	[,	(c)	
279/5	Printing ink	1112 1436	taye sed	96 to 411	i rožum a	Janta lai	27 2 3			
313	Iron castings etc				- Francisco	13196363	11			
333	Pumps, valves and compressors	THE HOUSE	di temi		to shada	die state	and tales	{ 0.1	3 107	
338	Office machinery	Street in	statthan	١ ا	(d) {					
339/3	Refrigerating machinery (except domestic type refrigerators)	\	(c) {		n seçalar ar		(c) <			
339/9	Miscellaneous (non- electrical) machinery	7.65	4	{ 4.5	101 47	egron Tail	ol o lyntyng	}	(d)	
349	General mechanical engineering		CO ROLL	16.8	448	stall bes	and kales			
353	Surgical instruments and appliances		10 TO 1	avale, a	(c)	EL (No. 1.7) Library	H P 200 S ROLL		(c)	
354	Scientific and industrial instruments and systems	estands as	(c)	omelit w	(c)	par bis 1	(c)		(c)	
361	Electrical machinery		(d)	ic income	al Borre	any actual	(d)		(d)	
362	Insulated wires and cables	638	5,755	• • •	(d)	1,171	6,979		(e)	
363	Telegraph and telephone apparatus and equipment			and to the	(e)	d James a		12.4	121 15	
364	Radio and electronic components	res verbook o	(d) {	1.3	175	2-13 (Veng 1)	(d)		10	
Palgring	Broadcast receiving and sound reproducing equipment	40.1	499	chest and lating that	(d)	175	1,286		(d) {	
367	Radio, radar and electronic capital goods	til gd far	(d)	Carrolle Reel and		000,88,000				
368	Electric appliances pri- marily for domestic use	2	974	5.4	222	i di ego di digior	(d) {	0.4	7 171	

	biroldo fy Matrogos s	Synthet	ic resins a	and plastics r	materials (ecced plastic	excluding least	thercloth		les a sen bet		
Moulding and extrusion compounds Moulding Sheet, film and foam (including expandable beads)				Phenolics a products: re net resin (solutions, e dispersions and extrusion	esins (the content), emulsions, moulding	Decorative laminated th sheet, ca laminated o tube and pro	mermosetting st sheet, r cast rod,	Aminoplastics, melamine and urea-formaldehyde			
	Lamida 	antibus of Your	S MOTOR AND	Owntitu	Cost	Quantity	Cost	Quantity	Cost		
Quantity	£'000	Quantity Th.cwt.	£'000	Quantity Th.cwt.	£'000	Th.cwt.	£,000	Th.cwt.	£,000		
Th.cwt.	1,469		2 000	81.4	748		tope in sent of	{ 22.3 	176 79		
	9,2]]		(c) {	₹ 15.5	151 }		(c)	mark destrict	(d)		
	8.01]		13	33.5 260	374 926 155	18.08	Latres es	8.4	94		
		lli	(d) {		(d)	102		- 4m2-Q1.3			
	(c) (1	30.9	193		- gaida	1 400.0000			
··			133		(c)		(d) {	\	(c)		
	a.az }	2.7	50		(d)			A soulded			
	5.1 1.6	1.	(d)	1 18.2	468			mextoo?			
	1 14		(c) {	19.9	199 100	}	(c)	ana II			
	(c)		(c) {	38.0	543 279	}	(c)		(c)		
	1 (4)	1 10		₹ 55.7	783 229	12.5	357 226	} 19.6	240		
}	(d)		(d) {		341	S.80.	(d)	Section and a	(e)		
7.2	101 121	}	(d)		(d)	3.8	227 99	}	(d)		
33.5	721	2.1	59 49	44.3	396 81	16.1	588 193	4.4	69		
	195		(e)		(d)	[]	(d)	as bun requi	(c)		
	(d)		(d)			$\left\ \left\{\begin{array}{c} 2.2 \\ \cdots \end{array}\right.\right\ $	109 77	}	(d)		
88.3	1,323	as a decreate of	883 -	26.2	543 99	}	(e)	and we now	(e)		

Continued on next page.

TABLE 9 (continued)

		Syr	thetic re	sins and aı	plastics nd reinfo	materials rced plast	(excluding	leatherc	loth
Standard ndustrial Classi-	distribut	Polyet	hylene an	d polypro olymers	pylene		Polyvinyl ncluding o	chloride opolymers	
Minimum List Heading	Purchasing industry (b)	and ex	moulding trusion ounds	profile	Sheet, rod, film, profile shapes and monofilament		and copoly- tuding the n content s, solutions ersions, icised and extru- empounds	Plasticised a unplasticise sheet, film, r tube, profil	
total the 1		Quantity	Cost	Quant ity	Cost	Quantity	Cost	Quantity	Cost
	UNITED THE T	Th.cwt.	£'000	Th.cwt.	£'000	Th.cwt.	£,000	Th.cwt.	£'000
369	Miscellaneous electrical goods	296.29	(d)	13-23-5	(d)	147	1,026 {	4.4	94 275
383	Aerospace equipment manu- facturing and repairing		(c)		(c)		(c) {	{ 2.4	124 156
399/1	Metal furniture		(d)		(d)			{ 2.6	65 177
399/8	Miscellaneous metal goods	33.6	478 {	5.2	$\begin{bmatrix} 229 \\ 41 \end{bmatrix}$			{ 10.8	208 205
411	Production of man-made fibres	102	926] .]	
423	Textile finishing		THE [}	(c) <	\}	(c) {	}	(c)
429/2	Miscellaneous textiles		les .		L			{ 8.4	91 342
432	Leather goods		(8)		237		-8	{ 25.6	377 731
450	Footwear		(c)	10,0		{ 123 · · ·	1,118 404	1.0	48 487
463	Glass		199	818			778		(c)
471	Timber		SIA SYS	}	(c) {			(0)	
479	Miscellaneous wood and cork manufactures	Ja. 27					-48		
481	Paper and board	89.3	660	31.7	778	1,272	0,20		
482/1	Cardboard boxes, cartons and fibre-board packing cases	3.8	39	$\left\{\begin{array}{c} 7.2 \\ \cdots \end{array}\right]$	162 257	· ·	(c)	101	(c)
482/2	Packaging products of paper and associated materials (other than board)	}	(c)	112	1,618	176	1,284	IST	
483	Manufactured stationery	e.e. 18	323	[517			agi	

Polysty	rene (incl	uding copol	ymers)		hylene and	Poly			
Moule	rusion ounds	Sheet, f foam (in expandabl	ilm and cluding e beads)	Phenolics a products: r net resin solutions, dispersions and extrusion	esins (the content), emulsions, moulding	Decorative laminated th sheet, ca laminated o tube and pro	st sheet, r cast rod,	Aminopla melamir urea-forma	ne and
uant ity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost
h.cwt.	£,000	Th.cwt.	£,000	Th.cwt.	£'000	Th.cwt.	£,000	Th.cwt.	£,000
41.1	516	0 .	(d) {	205	1,555 377	1.8	52 141	15.4	156 18
		4 1.7			12 6ab			z sociulă	
	(c)		(c)	••	(c)	23.8	(c)	Lingtons, y	(c)
)			500	76.1	(e) attoodd	Branbés af	
	2.04]]	. B. P.	sa 1011		198,1	821	ehildren's	Toj. gar ageringa egelpment	(c)
	(c) {		20	}	(c) <	- 1 B	radolikia ak	85.6	391
	8,8% of 9		'(c) {	E 19,881	3-801.12	99798	(c) {	Planting u	-200
	0.8, 1			J	169	4	Josluban s	mail and its	(c)
12.7	111 }	41019 a	el sub la	{ 18.2	177 27 }	5 ea 1).	- Wisola	5611196110	
20.7	233		61 89	15.1	176				(d)
in a	(c)	3.3.	T. Acc. 18	266	634	50.7	1,386 1,174	175	500 204
	(d)	1.0	20 31	and the		of Liportee	(d)	gurės inclu	50
one to	(c)		(c)	se per cent. for which no left firse, get o individ	(c)	nding them los relating them industries of informations	(c)	of editor be tein editor	off for sold (of sold (o) sold (o)

Continued on next page.

TABLE 9 (continued)

				NA DATE DE LA COMPANSION DE LA COMPANSIO					and the same of th			Anti-confession design	germent sets	****					
	#(olorsites)	S	Synthetic re	esins and a	plastics nd reinfo	materials orced plast	(excluding	g leather	loth		1968	Synthet	tic resins	and plastics and reinfo	materials (corced plastic	excluding leads	athercloth	ing statements	- Court
Standard Industrial Classi-		Poly	ethylene an and con	nd polypro	pylene	(risey[ago	Polyviny (including	l chloride copolymer	8)	Polyst	yrene (incl	uding cope	olymers)	EST SALBERTON					
Minimum List Heading	Purchasing industry (b)	and e	s, moulding extrusion mpounds	profile	od, film, e shapes ofilament	mers inconet rest of latice and dis plast moulding	and copoly- luding the in content s, solutions persions, icised and extru- ompounds	Plastic unplas sheet, tube,	cised and sticised film, rod profile and foam	Moul and ex	ding trusion ounds	foam (i	film and including ble beads)	products: net resin solutions, dispersions	Phenolics and allied products: resins (the net resin content), solutions, emulsions, dispersions, moulding and extrusion compounds		Decorative and other laminated thermosetting sheet, cast sheet, laminated or cast rod, tube and profile shapes		astics, ne and naldehyde
Cost	Y Cost Quantity	Quantit	y Cost	Quant ity	Cost	Quant ity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost
00013	. 100,d% 00013	Th.cwt.	£,000	Th.cwt.	£'000	Th.cwt.	£'000	Th.cwt.	£'000	Th.cwt.	£,000	Th.cwt.	£'000	Th.cwt.	£,000	Th.cwt.	£'000	Th.cwt.	£'000
484	Miscellaneous manufact- ures of paper and board		205,1	52.1	595) 18	(c)	13 44	(c)		88	The z	4,317	888	(c)		Leaves and last	National	
491	Rubber		(c) {			{ 214 ··	1,795 252	54.0	1,272 }	. }	(c)	1 78.2	(c) {	94.5	843	an gathleon	, asluora (todeši Jese	
492 493	Linoleum, plastics floor covering, leathercloth etc Brushes and brooms	76.1	663	 	(c)<	1,375	7,495 (d)	}	(c) (23,0	tyrens (d	(c)	45.4	255		(c)	onizoldo, squib hos phirogeon,	(c)
494	Toys, games, children's carriages and sports equipment	128	1,294			88.6	728 {	40.2	620 344	147	(e) 1,271 {	5.9	101 22 }	\	(c) {	Saurele	glaq adginis	a maning thro	
495	Miscellaneous stationers' goods		452		432		(c)	5	(c)	23.1	150	Mineral Lab	(c)		Tomal	Ja thin suist	Centrol 1000	gvallendet. ened avoide	
496	Plastics products	3,767	27,798	188	2,852 844	1,322	9,380 422	73.9	1,369 1,345	1,028	7,859	135	1,653 1,543	294	2,791 342	23.9	556 995	} 165	1,623
499	Miscellaneous manufact- uring industries		(d)		(c)		(c) {	3.0	99 111	}	(d)	Palance a	(c) {	35.1	130 53	}	(c)	usela benn	(c)
184	Other industries	69.5	1,005 290	12.5	441 398	105	1,458 226	57.1	595 815	38.7	318 75	10.7	148 61	50.9	822 160	17.6	467 547	43.1	482 15
505 5dg	Total	5,385	42,532 2,579	437	7,621 4,011	5,743	37,735 2,163	296	5,094 5,526	1,654	14,072 439	157	2,032 2,721	1,630	12,238 2,765	129	3,742 3,454	539	3,729 366

⁽a) The figures include purchases of imported as well as of home produced goods.

⁽b) Specified Census industries for which purchases are one per cent. or more of the total of at least one of the commodities shown, excluding those industries for which no information can be shown owing to the risk of disclosure of information relating to individual firms.

⁽c) Not recorded separately.

⁽d) Included in the total for 'Other industries'.

⁽e) Owing to the risk of disclosure of information relating to individual firms separate figures cannot be given and are included in the total for 'Other industries'.

TABLE 10 Purchases by larger establishments in the industry, 1963 and 1968

Establishments employing 25 or more persons: Analysis of returns received, United Kingdom

(noiseast pear	19	963	19	968
	Quantity	Cost	Quantity	Cost
daterials for use in production		£,000		£,000
Feedstock from petroleum (including gaseous feedstock, but excluding organic chemicals)	Phonolics productur no. rangu	3,319	und companies	7,602
Synthetic resins and plastics materials (excluding leathercloth and reinforced plastics) other than scrap	uno (m/pa - 1) na la roquito na la roquito	n kum makkika pa bangi peni Pendungan	o jastin (aks) Saratus Ebrassa	ngaine doversor enempo
Polyethylene (including copolymers with ethylene as a major constituent) granules, moulding and extrusion compounds		ploat ding	edick exchange	ambay y
	Th.cwt.	2200351	Th.cwt.	19001111
Low density		politicant	367	2,883
High density	F20			554
Polypropylene (including copolymers with propylene as a major constituent) granules, moulding and extrusion compounds	533	4,317 <	∫ 74.2	573
			. j	309
Polyvinyl chloride polymers and copolymers; solutions and dispersions; plasticised moulding and extrusion compounds	403	3,145 {	1,021	6,471 80
Polystyrene (including copolymers)			or 112	9)
Resins				
Non-toughened straight polystyrene	h	101 as a (9. 8,000 1	60
Non-toughened styrene copolymer		(a) {		428
Toughened grades of polystyrene and copolymer		(0)	(4)	867
Moulding and extrusion compounds (b)		Anna All Des		
Non-toughened styrene and copolymer		1	87.3	532
Toughened styrene and copolymer	> 140	1,091	127	937
Solutions, emulsions and dispersions	l'	(a)		266
Phenolics and allied products: resins (straight and	9 8 .80 549	5at 105	1/10/05/11/19	200
modified) solutions, emulsions and dispersions (c)	45.3	471	81.4	748
Aminoplastics (melamine and urea-formaldehyde) solid and liquid resins, solutions and syrups	30.0	261 {	22.3	176 79
Cellulose acetate and nitrate moulding and extrusion compounds	•••	102		419
Other thermoplastic materials (d)		1000 of 1	retail of a	8,674
Other thermosetting materials (d)]	3,638		2,227
Plastics scrap for reprocessing		116	92.3	264
General chemicals (e)				
Inorganic (including inorganic gases)	A YES IN STREET	Licus nop	rate figures	
Acids		2,407		3,653
Blacks, mineral or carbon		(f)		502
Calcium carbide		1,390		1,825
Carbon disulphide		(a)		1,035
Sodium compounds (excluding phosphates)		365 (g)		1,852
Other inorganic chemicals not elsewhere specified		2,952		6,797

TABLE 10 (continued)

1963 1968	19	63	1968			
	Quantity	Cost	Quantity	Cost		
daterials for use in production (continued)	(bount troo	£,000	ni esu to	£'000		
General chemicals (e) (continued)	16	gni imovi (i) aloginal			
Organic (including organic gases)	ages bun-bis	ingressiffe s	31111 X Lm (1911)			
Hydrocarbons	Thomson A	em 19 best	w .crmstar			
Aliphatic	(4200130	annaint to	a uzzycowa ele ozadzia			
Ethylene			ela ciolos	9,745		
Propylene		wyge	of tanting to	1,322		
Butadiene		11,987g)	o wat work	8,434		
Butylenes				507		
Other				4,979		
Cyclic	all antholy	att sameld	diren bin			
Benzene		(15		
Cyclohevane	bedi ted	to sump.	NET 200/YEAV	7,056		
Styrene (monomer)		5,315(g) {	33.	10,497		
Toluene		V 518	389	311		
Other		200		1,421		
Alcohols (h)	bea (Merch)	as coldings.	patter to	laina 20		
Ethanediol	1	arridata a		755		
Other		2,382	(5)	5,128		
Cellulose derivatives (esters, ethers and ester-	els seels b	ow steam	novice ga	xed x (zer		
ethers), including cellulose acetate and cellulose nitrate	TK. Owner	2,101	The second	3,358		
	r sadad suga	974	Lo I suiv-acyty	1,115		
Formaldehyde and paraformaldehyde		35	70	364		
Isocyanates		267	1,400,581	493		
Maleic anhydride	3 marian	724	sea ello ga	1,000		
Melamine		270		543		
Pentaerythritol	a sechiosis,	90 <u>189383</u> 19	d alter in	associanile		
Phenols disprod alo	et eldana ado	1,928	granon han junno	3,233		
Phenol		advect ove	1 100	1,748		
Cresols, etc		1,050		222		
Refined cresylic acids	1	593		1,783		
Phthalic anhydride	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(a)	456 4555	3,389		
Methyl methacrylate (monomer)	all the state of	840	o toping	1,134		
Urea	diere (e th		The _enolities	2,159		
Vinyl acetate (monomer)	To a section	1,800	To lette	10,388		
Vinyl chloride (monomer)		7,067	Sept Peckins	2,932		
Monomers for plastics, not elsewhere specified		2,708	C	251		
Acetone Other organic chemicals, not elsewhere specified		12,372	{	14,927		

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TABLE 10 (continued)

	- Comment	1963	1	968
tend (statement) tend (statement)	Quantity	Cost	Quantity	Cost
Materials for use in production (continued)	(being back	£'000	d ki his is	£'000
General chemicals (e) (continued)		0.00		- 000
Other (eg mixtures of inorganic and organic chemicals)	(ena	a pigaga	a bolomi)	danaro danaro
Plasticisers, mixed or unmixed (excluding vegetable and seed oils used as plasticisers)			snutrao	nbell 7,60
Phosphate plasticisers			phatile	600
Phthalate plasticisers		4,345	eno fest si	4,580
Other plasticisers		1,010	lain (wood	2
Extenders (eg chlorinated paraffins)	1			2,728
Other	}	8,289(i){		444
Dyestuffs	1	l	Banelgies	1,645
		1,939	and st	1,109
Pigments and earth colours (including lithopone, zinc oxide, titanium dioxide)(j)		926	1 764	2,847
Glycerol (glycerine), crude or refined		242	900201	1,059
Vegetable and seed oils (including drying oils)		1,742	Samuel of Samuel	2,559
Natural gums and resins (including rosin and tall oil)		910	hat manight	2,551
Glass fibre fabrics, rovings and chopped strand		327	monts les?	
Woven piece goods (other than narrow fabrics) wholly or mainly of cotton, synthetic fibres, and other		321	Th.sq.yds.	965
man-made fibres		680	8,281	1,044 224
Fillers not elsewhere specified	E 11 - 11 / 1		le i manifil	
Wood pulp		[5,985
Other (eg cotton linters, wood flour, clay, asbestos fibre and textile waste)		4,889	reb enotati	
Paper and paperboard (including paper for impregnation with plastics materials) other than paper and	110	1,6781	dal debed	1,383
paperboard for packaging	- norgiobi	2,195	de stredebles	5,447
	Th.gal.		Th.gal.	
Inhaicating ails and	116	36	326	106
Lubricating oils and greases	Th.cwt.		Th.cwt.	
	$\left\{\begin{array}{c}0.8\\ \dots\end{array}\right.$	6 25	11.5	79 33
Replacement parts for firms' own machinery, plant and vehicles, and accessories and consumable tools bought as replacement		1912	a loo	
Tyres and other spare parts for firms' own road			lona!	
goods vehicles		0	de aloss	134
Other		3,456	town banks and	
All other materials for use in production	,	10		5,549
ackaging materials		16,761	Man of Ist	21,311
Paper and board	. (28)	stone and	try? methnosty	
Boxes, cartons, drums and canisters (with or without metal ends) of paper and cardboard		2,407	20	
NAME OF THE OWNER OWNER OF THE OWNER OWNE		831		1,173
Fibreboard packing cases			Bi so ide	265
Bags and multiwall paper sacks (k)	oral vielo	1,220	201 .01 00000	2,143
Wrapping and packing paper (including paper coated with plastics and any laminates incorporating paper but not metal) (1)	Mana In	950	eno 2 e	1 802
		279		336

TABLE 10 (continued)

		and second second		1963		1968	
			T	Quantity	Cost	Quantity	Cost
Packaging materials (continued)	1963	sing	1		£,000	Name of the last	£'000
Metal				Progentina a	o bercolope	Vinishmes-do	
Cans and boxes			1		133		248
				Thousands		Thousands	
Barrels, kegs and drums			{	699	90	1,645	2,132
Containers wholly or mainly of boxes and drums), baskets and	wood (incl wickerwork	uding plywood crates		inox lact	340	Mon 2000	1,129
Plastics (other than transpare film)	nt regenera	ated cellulose		red to hos	as my h-	1 7 mm 10 Cr	
Bags and sacks of 500 gauge	and over			5001 V190 J	Salato Sulta Las Parellia		189
Large moulded and fabricated	containers	(including		}	(a) {	1 20 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
closures and inserts) with a 1 gallon	capacity 6	exceeding			l		41
Jute and hessian piece goods,	sacks and b	pags			53	1200000000	85
All other packaging materials					914	800.141	1,386
Fuel and electricity (m)			7.1	seen but so		weedle of the	
***				Th.tons	1 010	Th.tons	751
Coal			,	231	1,313	Into	4
Coke (including screenings) ar	nd manufact	ured fuel	1	4.8	38	0.4	1
				Th.gal.		Th.gal.	
		ad vahialas	1	890	148	1,205	294
Derv fuel and motor spirit for	r use in ro	ad venicles	l		18	1	0.010
Other liquid fuels (including etc, and liquefied petroleum a	creosote/p gases)	itch mixtures,	{	31,833	1,165 136	78,067	3,019 1,159(
94.50				Th.therms	Transport	Th.therms	
Gas			{	3,332	196 186	7,259	549
				Th.kWh	Par seni	Th.kWh	0.005
Electricity				1,016,244	4,205	1,600,581	8,627 1,762
2,5001 10 103							
Total cost of materi	als and fue	el			134,865		236,696
Goods purchased for merchanting					8,560		21,389
Canteen purchases					422		751
					149 047		258,836
Total cost of purcha	ases				143,847		200,000

(a) Not recorded separately for 1963.

(b) For 1963 described as 'Polystyrene: moulding and extrusion compounds (excluding expandable beads)' only.

(c) For 1963 described as 'Phenolics and cresylics: straight and modified resins including solutions, emulsions and dispersions'.

(d) For 1963 described as 'Other polymers and copolymers: moulding and extrusion compounds, etc'.

(e) For 1963 described as 'Heavy chemicals (acids, alkalis, alcohols, other inorganic and organic chemicals, compressed gases, other than feedstock, etc)'.

(f) Included with pigments and earth colours for 1963.

(g) So far as recorded separately.

(h) For 1963 described as 'Alcohols other than sulphated alcohols'.

(i) Including unclassified inorganic and organic chemicals, etc for 1963.

Footnotes continued on page 34/26.

TABLE 11 Transport costs and employment of larger establishments, 1963 and 1968

Establishments employing 25 or more persons: Analysis of returns received, United Kingdom

and NASA of the case of the State of the Sta	Unit	1963	1968
Average number mainly employed on transport	No.	297	705
Transport costs			
Wages and salaries	£'000	284	836
Derv fuel and motor spirit	"	166	294
Tyres and other spare parts for road goods vehicles	mercia posi	wood (twee	134
Downson to the by road	"	1	7,485
Payments to other organisations by rail and other means excluding postal services	"	3,429	650
Costs of operating road goods vehicles	perfection: 3	ental a hago	
Insurance	"	31	46
Vehicle licences	"	16	84
Depreciation	11	172	302
Payments to other organisations for repairs and maintenance	"	51	171
Total	н	4,149(a)	10,002

(a) Excluding tyres and other spare parts for road goods vehicles, not collected separately for 1963.

Footnotes continued from page 34/25.

TABLE 12 Payments for certain services, etc by larger establishments, 1963 and 1968 (a)

Establishments employing 25 or more persons:
Analysis of returns received, United Kingdom

ry corresponds to aiminus lies headlest 277 to the t	Amounts	payable
	1963	1968
Repairs and maintenance to	£,000	£'000
Buildings	341	790
Road goods vehicles	51	171
Plant, machinery and other capital equipment	1,436	4,012
Insurance, licensing and depreciation of road goods vehicles (b)	219	433
Rates, excluding water rates	1,019	2,325
Hire of plant and machinery	227	1,215
Postage, telephone, telegrams, cables and telex (c)	651	1,297
Total	3,943	10,243

⁽a) No deduction is made for these payments to arrive at the figures of net output given in this report.

TABLE 13 Percentage analysis of twelve-month periods covered by returns from larger establishments, 1968

Establishments employing 25 or more persons: Analysis of returns received, United Kingdom

Year ended	Percentage of total returns received	Percentage of total number employed	
1968	Per cent.	Per cent.	
April (a)	1.7	0.4	
May	4.2	1.4	
June	2.5	1.0	
July	1.7	0.2	
August	2.5	0.3	
September	5.8	3.3	
October	1.7	0.3	
November	3.3	0.7	
December	54.1	74.3	
1969			
January	0.8	0.1	
February	1.7	0.3	
March	19.2	17.5	
April (b)	0.8	0.2	
	100	100	

⁽a) From 6 April.

⁽j) Including blacks, mineral or carbon, for 1963.

⁽k) Multiwall paper sacks only for 1963.

⁽¹⁾ Included with moulded pulp units, labels and other packaging materials of paper, cardboard and fibreboard for 1963.

⁽m) The total quantity of electricity generated in establishments employing 25 or more persons in this industry was 167,208 Th.kWh in 1968. Owing to the risk of disclosure of information relating to individual firms the quantity for 1963 cannot be given.

⁽n) For 1968 may include a small amount of fuels not covered by specific headings.

⁽b) For details see Table 11.

⁽c) Excluding telex for 1963.

⁽b) To 5 April.

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