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Chief, Information Acquirements Staff

8 April 1968

ATTH

Production of Man-sade Fibers in the USER

Information on man-made fibers (including trade and plant and product listings) is supplied in response to a request from State

Department. The information is to be used in June 1968.

Attachments

(8-2695)

FORM A Name of Company & Person Complet PERSON	ing This Repor	rt	ADE FIBER : REPORT FOR Emba	SURVEY U.S.S.R ssy	2-68-50 (COUNTRY)
	ACT	TUAL PRODUCT	ION	DDOOULO	
THOUSANDS OF POUNDS	YEAR 1966		YEAR	- PRODUCING	CAPACITY TE) AS OF-
CELLUI COLO	AS NOW SHOWN	AS REVISED 1967		MARCH 1968	DECEMBER 1969
CELLULOSIC FIBERS FILAMENT YARN + MONOFILAMENTS	(1) S	(2) sec attached	(3)	(4)	(5)
HIGH TENACITY RAYONA	218,700	sheet 218,700	·	. 54	
CUPRA + OTHER VISCOSE RAYON	181,000	138,900			
ACETATE + TRIACETATE)	43,200			
TOTAL YARN + MONOFILAMENTS	399,700	400,800			· · ·
STAPLE + TOW (EXCEPT CIGARETT	E TOW - SEE	4TH LINE RE	10W)		
VISCOSE + CUPRA RAYON	398,400	396,800		·	

1,300

398,100

398,400

Rayon Waste NON-CELLULOSIC FIBERS

ACETATE + TRIACETATE

Acetate Cigarette Tow

TOTAL STAPLE + TOW

FILAMENT YARN + MONOFILAMENTS

NYLON - INDUSTRIAL TYPED

ACRYLIC + MODACRYLIC

OLEFINC

ALL OTHER - ITEMIZE

Total Non-Cellulosic Waste TEXTILE GLASS FIBER - TOTAL

TOTAL STAPLE + TOW

NYLON - INDUSTRIAL TYPED) 138,000				
OTHER	130,000				
POLYESTER	11,000	 	-		
OLEFIN INCL. SPLIT FILMC	3,400				
ALL OTHER - ITEMIZE	3,400	 	· · · · · · · · · · · · · · · · · · ·		
·	1,500				. `
TOTAL YARN + MONOFILAMENTS	153,900				
STAPLE + TOW + FIBERFILL				· .	
ACRYLIC + MODACRYLIC	33,000				
NYLON (POLYAMIDE)	11,000				
POLYESTER	12,000				
01.5510			1 1	í l	

See footnotes (a, b & c) and definitions of all fibers on Form $B_{\scriptscriptstyle{\bullet}}$

2,400

58,400

Column 1. These are the 1966 production data published in the June 1967 ORGANON or revised later.

Column 2. Please revise any incorrect (or supply any incomplete) 1966 data in this column.

Column 3. Please enter the 1967 production data in this column.

Columns 4 & 5. Industry capacity (annual rate) today and at the end of 1969, in condition to operate. Please show capacity which could operate, whether or not in actual operation.

PERSON COMPAN	deport REF NY OR AGENCY	PORT FOR U.S. EMBASS	S.R. Y	(COUNTRY)	
THOUSANDS OF POUNDS	IME	PORTS	EXPORTS		
& SITC NUMBERS	1966	1967	1966	1967	
TEXTILE GLASS FIBER - TOTAL 651.8		·	•		
FILAMENT YARN+MONOFILAMENTS INCL. TI RAYON+ACETATE - 651.71, .72, .73	RE CORD *		÷.		
NON-CELLULOSIC - 651.61, .62, .63	4,700				
TOTAL	18,700				
STAPLE+TOW+TOPS RAYON+ACETATE - 266.31, .32, .33	* 82,200				
NON-CELLULOSIC - 266.21, .22, .23	19,400	:			
TOTAL	101,600				
SPUN YARN (FROM STAPLE OR WASTE) RAYON+ACETATE - 651.74, .75					
NON-CELLULOSIC - 651.64, .65	·		i		
TOTAL					

* See attached sheet for revisions or 1960 data.

HOTES & DEFINITIONS FOR THIS SURVEY Instron tenacity of 8 p

An asterisk (*) indicates that a new plant, or facilities for producing a new product at an existing plant, is in the planning or construction stage; such facilities are not expected to be operable until 1969 or later. Other product-plants listed are operable today or will be operable during 1968.

The town name shown is to be the plant location.

The italicized words are trademarks. Other fiber names are generic and are shown in regular type.

CELLULOSIC FIBERS

Acetate (A). Cellulose acetate.

Triacetate (T). Cellulose acetate, wherein not less than 92% of the hydroxyl groups are acetylated.

Rayon (H, V or C). Regenerated cellulose, including substitutions for not more than 15% of the hydrogens of the hydroxyl groups.

In the cellulosic fiber listing, a symbol (or symbols) in the left-hand column indicates that the plant produces filament yarn and/or monofilaments, while the symbol (or symbols) in the right-hand column refer to staple and/or tow.

The processes of manufacture in both columns are a identified as follows: If for high tenacity viscose rayon (tire or industrial-type yarn), V for regular & intermediate tenacity viscose rayon, C for cuprammonium, A for acetate and T for triacetate.

NON-CELLULOSIC FIBERS

Acrylic. At least 85% acrylonitrile by weight. Modacrylic (Modacryl). 35% to 84% acrylonitrile by weight.

Alginate. Azlon. Regenerated protein.

b Nylon (Polyamide). Nylon is divided as: (1) tire & industrial type, i.e. 700 denier & coarser with an

Instron tenacity of 8 grams per denier or more and (2) "textile" types or all other.

Olefin (or Polyfin or Polyolefin). At least 85% ethylene, propylene or other olefin units by weight. An E shown before the type of fiber in the directory (e.g. E monofil) means Polyethylene, while P means Polypropylene.

c Include the production of olefin slit or fibrillated film fiber as made for such uses as industrial twine, sand & other bags, carpet & rug backing, etc. This man-made fiber competes with jute and sisal and thus should be included in the industry data.

Polyester. At least 85% by weight of an ester of a dihydric alcohol and terephthalic acid.

Saran (vinylidene). At least 80% vinylidene chloride by weight.

Spandex. At least 85% of a segmented polyurethane. Vinal (vinylon or polyvinyl alcohol). At least 50% by weight vinyl alcohol and wherein_the vinyl alcohol plus acetal units are at least 85% by weight.

Vinyon (polyvinyl chloride). At least 85% vinyl chloride by weight.

TEXTILE GLASS FIBER

A fiber produced in two primary forms, namely continuous strand and staple sliver. Continuous strand is a drawn fiber (i.e. from a textile-type bushing), while staple sliver, which is produced in relatively small amounts, in current practice is a blown fiber. Textile glass fiber thus does not include the substantial poundages of blown glass wool and pack, i.e. mat for air & liquid filtration, acoustical & thermal insulation, battery mats & separators, underground pipe wrap, etc.

The principal commercial forms of textile glass fiber today are yarn, strand, roving, mat, chopped strand, milled fiber and staple yarn & sliver.

1967 WORLD MAN-MADE FIBER SURVEY

The USSR has not yet reported the 1966 breakdown for production of individual types of non-cellulosic fibers in terms of filament and staple. Available information does parmit the calculation of total production of each type, as follows (in thousands of pounds):

Nylon Polyester	183,000
Acrylic PVC	16,000 9,100 4,000
Total	212,100

Total Soviet production of chamical fibers in 1967 was 1,126,550 pounds. He further breakdown is available at this time.

Revisions of imports for 1966 are as follows (in thousands of pounds):

Filament Yarn Rayon and acctate Bon-cellulosic	11,700 4,700
Total.	16,400
Staple + Tow + Tops Rayon and scetate Non-tellulosic	83,800 18,100
Total	101,900

There were no significant exports in 1966 and the data for 1967 are not yet available.

	THE TRUE TROUBLE	THE COMP	2-6	8-3
Name of Company & Person Completing T	This Report RE	PORT FOR	U.S.S.R.	
PERSONC	COMPANY OR AGENCY	EMBASS	Y (COUN	IRY
All products to the to				

ls Works

s, and the symbols used, are defined on Form B.

Please carefully edit the following listings for

accuracy in <u>all particulars</u>.

Please supply the names of new or prospective producers, showing in each case: the company name, plant location, product made (e.g. nylon, etc.), type of product made (e.g. yarn, staple, etc.), the

trademark used, and the date when the plant became, or will become, operable.

Please identify nylon as Type 6, 66, etc. Please add to the roster, and identify by "split olefin," any old or new companies producing olefin split film products on such machines as the Barmag (German), Samaford (French), Plasticizers (U.K.), etc. Also see footnote (c) on Form B.

For revised listing of plants and products see attachment.

UNION OF SOVIET SOCIALIST REPUBLICS

The following listing of plants and products cannot be regarded as complete or accurate.

R	6 A		NOK-	CELLU	LOSIC	
H H VA	•	Mod	Ny l Ny l	Est		Baku, Azerbeijan Balakova, near Saratov - Enge Barnaul, Altai District Cherkassy
A• A VA	v	Mod	Nyl Nyl Nyl			Chernigov, Ukraine Daughavpils, Latvia Engels - Engels Works Kalinin - Kalinin Combine
H T V A V		Nod	Nyl Nyl		P &	Kamen Kaunas, Lithuania Kiev - Kiev Combine Kirovakan, Armenia Klin - Klin Combine
HV	v	Acr.	Nyl	Est. Est	P Glass	Krasnoyarsk, Siberia Kursk Leningrad - Karl Marx Works Leningrad - Kirov Institute
V V A A	V		Ny l Ny l	Est*	Glass	Mogilev Moscow - Mtischi Works Moscow - Serpukhov Works Moscow - Shuya Works
	v	Acr*	Ny l Ny l			Polotsk Riga, Latvia - Komsomol Rustavi Ryazan
Н	Y	Acr		Est		Saratov Schatilki, near Gomel Sverdlovsk - Aramil Works Tallin Marat
			Ny l Ny l	Est		Tula Volgagrad Volsch

This facility will not be operable until 1968 or later. This lacitity will not be operable until 1900 of later. The italicized product names (e.g. Wyl) mean pilot plants. Plants previously mentioned, but present status unknown, are: acrylic at Stalinogorsk and Lvov; and polyester at Angarsk, Nizhniy Tagil, Stalinogorsk and Usolye Sibirsk. A vinal plant is believed to be in operation, but location is unknown.

Nizhniy iagil, Stalinogorsk and Usolye Sibirsk. A vinal plant is believed to be in operation, but location is unknown. Products and trade names: (Acr) acrylic Kitron, Polynak; (Mod) modacrylic Saniv; (Nyl) Nylon: "6" Kapron, "66" tire yarn Anid, "7" Enant, "9" Pelargon & "11" Rilsan; (Est) polyester Lausan & Okson; (PVA) vinal Vinal (regular strength) and Letin (high strength): (PVC) vinyon Klorin; (P) polypropylene; fluorocarbon Florion & Polifon: and (Glass) textile plass (ther Ftorlon & Polifen; and (Glass) textile glass fiber.

Will any of the projects indicated by an asterisk by operable in 1968?

Possibly the polyester project at Mogilev and the acrylic project at Polotsk.

<u> </u>	A		Aco-coll	ulosie		· . _
					Glase	Astrakhan
		Hod		Est#		Beku, Azerbeijan
芸芸	*		101 6 101			Palakova, bear Carator - Eogels Forks Darrout, Altat Mututes
A# A A		Hod	Hyl 6,66 Hyl 6 Hyl 6			Cheriassy (no confirmation of sylon) Chernicov, Unraine (no conf. of acetate) Daughavplis, Latvia (* Engels - Engels Works
AY	¥	Acr	ay1		Girsa	Kalinin - Kalinin Combine (no conf. of
Z.						Kemen Kemen, Lithernia
¥			tyr 66	,	61ass	Distances Eige - Kier Contino
A V		Rod	Hy1 6,66		TI & DATE	Kiroveten, Armenia
HA			Mr elec		F . FIL	Elin - Klin Combine (no cent. of mod, P, or PVC)
447	ag.	AGE	Ryl 6,66	Bat	Ži.	Arasacyarck, Siberia (no cost. of acrylic Eurok
	A	<u>her</u>	By1 6		FVC Glass	Kustanay Leningrad - Karl Harz Vorks Leningrad - Kirov Institute
*	¥ .			Esta	Glass	Mingerhaur Mogiler (no confirmation of mylon)
¥	14			Bat	Glass	Actors - Minchi Vorks (no cont. of
A						Miscon - Corpubber Moras Miscon - Corpubber Moras
		£cr#			Glass	
			Ey l			Folotsk - Folotsk Chemical Combine Riga, Latvia - Konsomel (no conf. of
	Å		Byi 6			Austria ebenical fiber) Byazan
		Aer		Est#	Olasp	Saratov - Synthetic Alcohol Flant
H					Glaso	Serator - Technical Glass Plant Schatilki, near Gomel
	¥				Glass	Seron - Seron Claso Fiber Plant Everdlovek - Armail Works (no conf.)
KY				Eat	Gleas	Gretlogorak Tallin Harat (no confirmation of this)
			Hyl 7 Hyl 6,7,9	Est		Tula (no confirmation of this) Volgagrad Voluch