

(Bicomponent Fibers)

conjugate fiber(2

) bilaterol structured fiber (2)

, fiber having built in crimping potential (

), reversible crimp fiber(가), self crimpable fiber ()

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가 2

가 , 가

가

.

crimp bulky

가 .

1. S/S (side-by-side type) :

2 < 1(a)>.

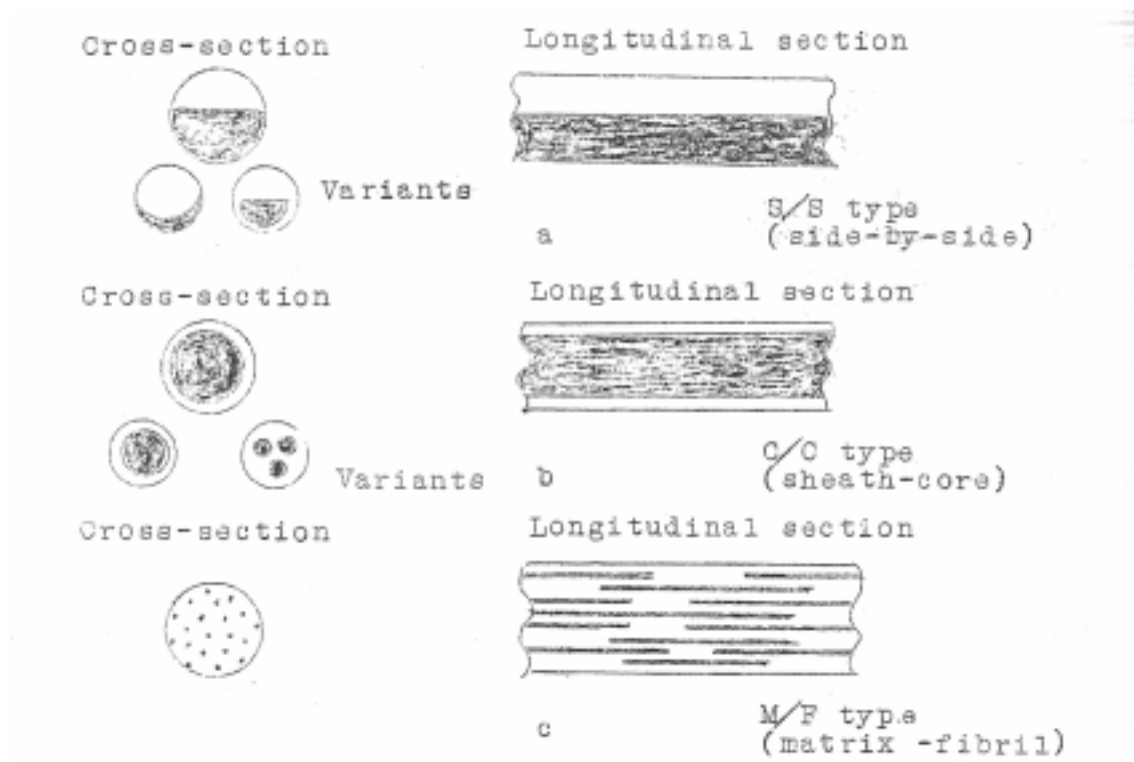
2. C/C (Sheath-core type) :

가 < 1(b)>

3. M/F (matrix-fibril type) :

biconstituent fiber 가

가 < 1 (c)>



< 2> Main types of bicomponent fibres and variations on these.

Deutsche Rhodiaseta 가 Zebrhode Zebrane

2

가 . 2

Vistralan

Animalized rayon M/F

Cuprammonium oxide

가

가 .

30

I.G.Farbenindustrie

H.Fink

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Du Pont

가 poly-

acrylonitrile

Orlon-Sayelle

Orlon21

.

가

가

가

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. S/S C/C

가

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가

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1. S/S

3

S/S

가

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가

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가 75 : 25

50 : 50

2 가

.

가

가

.

가

.

.

가

Polyamide

Polyester

가

(co-

polymer)

가

S/S

.

Polyamide 6.6 / Polyamide 6

Polyamide 6.6 / modified or cyclic polyamide

Polyamide 6 / modified polyamide

Polyamide 6.6 / Polyurethane

Polyacrylonitrile / modified polyacrylonitrile

2. C/C

S/S

polyamide
polytetrafluoroethylene(Teflan)
polyamide polyurethane
가 (polyamide 6.6 6)
bonded fabric
fiber web 가 . C/C
가

3. M/F

가 fibril
matrix . fibril
0.1~1 μ 가 matrix .

40% polyester polyamide

polyamide

flat-spotting

M/F

가

S/S

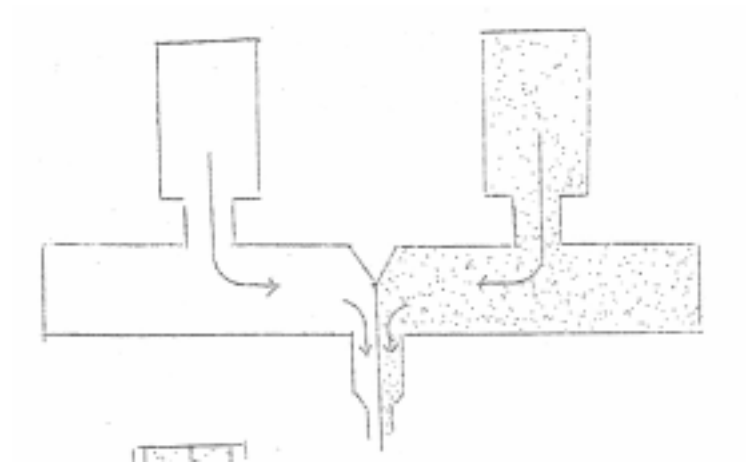
3가

가 가

가

. < 2>

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< 2> Construction principle of a simple spinneret for bicomponent fibres of the S/S type, according to BP 979083 (Societe de la viscose Suisse)

“mixed stream”

< 3>

stream

stream

가

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“mixed stream”

(rows)

(rings)

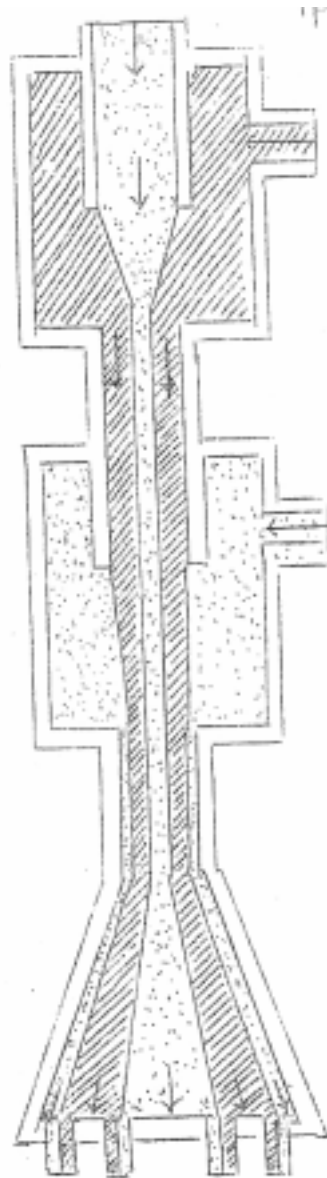
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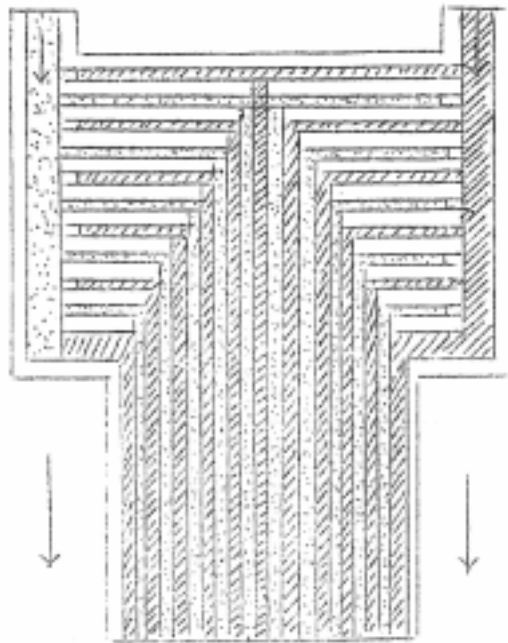
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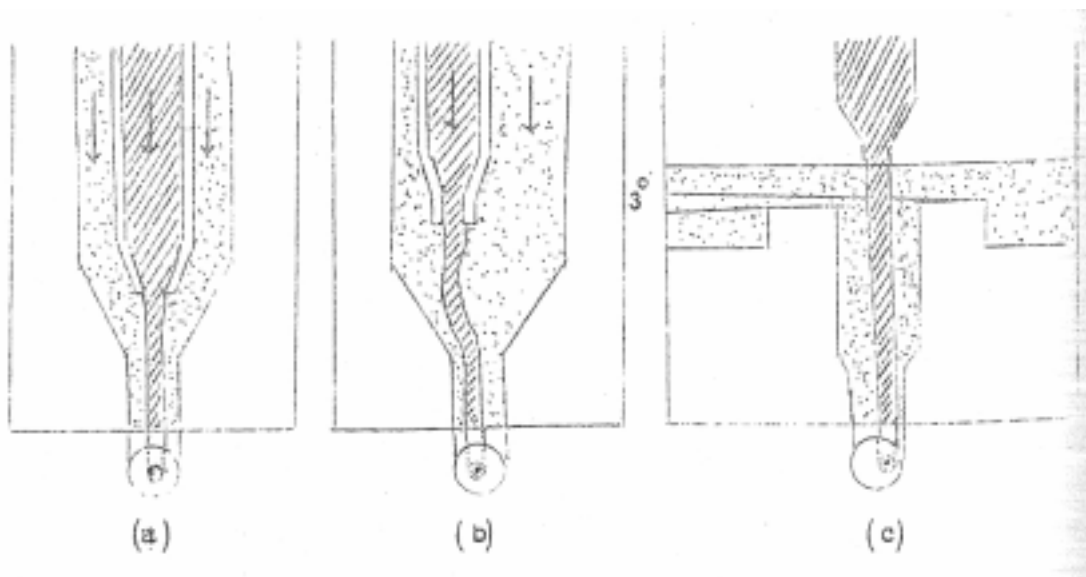
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< 3> The type of channeling system required to produce bicomponent fibres by the “mixed stream method”(Simplified form)



< 4> Simplified drawing of an arrangement for producing a “mixed stream” of many cylindrical layers suitable for Group 3 fibre extrusion(BP 1019052)



< 5> Construction principle of spinnerets for production sheathcore fibres with concentric (a) and eccentric polymer arrangement(b, c)

C/C

가

가

S/S

< 5>

M/F

fibrous

acrylic staple

가

가 가

S/S

crimp

bulky

pantyhose, stocking

C/C

bonded fabric

M/F

< 1>

Table 1 Table of bicomponent fibres

Trade name	Type	Polymer components	Form	Manufacturer	Field of application
Acrilan 57	S/S	Acrylic	S.T	Monsanto Co., Decatur Ala. (USA)	Knitted fabrics "Bi-Loft" (low pilling)
Acrilan 49, 94	S/S	Acrylic	S		Floor coverings
Beulan (Boston) conjugate fiber	S/S	Acrylic	S	Toho Beulan Co., Mishima (Japan)	
Cambrelle		(see Heterofil)			
Cantrece	S/S	Polyamide 6.6/ modified polyamide	F	Dupont de Nemours & Co. Wilmington (USA) and Uentrop (D)	Stockings pantyhose
Cashmilon-conjugate	S/S	Acrylic	S	Asahi Chemical Industry Co., Tokyo (Japan)	
Colback	C/C	Polyester/polyamide 6		Enka-Glanzstoff B.V. (NL)	Carpet primary backing fabrics
Courtelle LC (Latent crimp)	S/S	Acrylic	F	Courtaulds Ltd., Coventry (GB) and Calais (F)	
Creslan 68, 94	S/S	Acrylic	S.T	American Cyanamid Co. Cleveland, Ohio (USA)	Carpet yarns
Creslan 83, 84, 85	S/S	Acrylic	S.T		
Crilenka	S/S	Acrylic	S	Cyanenka S.A., Iberenka S.A., Barcelona (E)	Knitted fabrics (E)
Euroacril	S/S	Acrylic	S.T	ANIC S.P.A., San Dona-	Pile fabrics, knit-

				to (I)	goods-hand-knitting yarns, stockings.
Exlan conjun- gate	S/S	Acrylic	S.	Japan Exlan Co., Osaka (Japan)	
Herculon 404	S/S	Polyolefine	P.S	Hercules, Wilmington De. (USA)	Knitted fabrics
Heterofil	C/C	Polyamide 6.6/ Polyamide	S.P	I.C.I. Fibres Ltd. Harrogate (GB)	Bonded fabrics (Cambrelle, Melcel)
Kanebo Nylon 22	S/S	Polyamide 6/modif polyamide 6	P	Kanegafuchi Spinning Co., Osaka (Japan)	Stretch fabrics. particularly ladies- sock-hosiery
Melcel		(see Heterofil)			
Mondel		Polyamide 6/Polyester		Teijin Ltd., Osaka (Japan)	
Monvelle	S/S	Polyamide 6/Poly urethane elastomer	P	Monsanto Co., Decatur, Ala (USA)	Hosiery
Orion 21	S/S	Acrylic	S, T	Dupont de Nemours & Co	Knitwear and kn- itting yarns
Orion 23	S/S	Acrylic	T	Wilmington (USA) and Uentrop (D)	Socks (Sayello)
S-28	M/P	Polyamide 6/ Polyester	P	Teijin Ltd., Osaka (Japan)	Tyre cord
Sideria (Kane- bo)	C/C	Polyamide 6/3x Polyester	P	Kanegafuchi Spinning Co., Osaka (Japan)	
Source	M/P	Polyamide 6/ polyester	S, T	Allied Chemical Corp., Chesterfield, Va. (USA)	Tyre cord, Carpet yarns
Vonner V-57	S/S	Acrylic	S	Mitsubishi Rayon Co., Tokyo (Japan)	Knitted fabrics