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From nonwovens.com
General Message Board:

We have been retained to conduct a search for our client involved in nonwoven materials manufacturing. They are actively seeking 3 sales & marketing representatives. The remuneration package includes a base range of \$90 to \$120 USD.
Brad Frazer

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Foss future nearly sewn up: French biz sold; U.S. equity firm bid \$39M for rest

A Florida-based investment house has the best chance of buying the Chapter 11 assets of New Hampshire needlepuncher Foss Manufacturing Co. Inc., the U.S. Bankruptcy Court-appointed trustee said this week.

Alinian Capital Group LLC is the "most likely" purchaser of Foss, trustee Patrick O'Malley said in an interview. The firm bid \$39.1 million for Foss' U.S. and Australian assets.

But a better offer could still emerge. On the 27th, an auction will be held to try and top Alinian's bid, O'Malley said.

AJ Nasser, a principal at the investment boutique, declined to comment on the bid prior to the auction.

Separately, Foss' Pulversheim, France factory and business was sold two or three weeks ago to a Turkish company, an employee at the firm said. The enterprise now employs about 20 people, the employee said, about half as many as a year ago. No further details were available before deadline.

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Mitsui to add 2nd Thai spunbonding line in 2008; It starts breathable film biz in June

Mitsui Chemicals Inc. will add a second hygiene spunbonding line at its Thailand subsidiary, more than doubling the unit's capacity, the Japanese-based company said last month.

The \$42 million investment will boost Mitsui Hygiene Materials (Thailand) Co. Ltd.'s annual capacity to 30,000 tonnes from 14,000 tonnes, the company said.

Project construction is scheduled to begin this month, with line start up in January 2008, the company said.

Mitsui "aims to expand the hygiene materials business, part of health-care materials, by putting in place a framework capable of supplying high-quality products in Japan as well as in East and Southeast Asia in step with increased market penetration by disposable diaper manufacturers in Asia," the company said.

Demand for polypropylene spunbonded fabric is expected to grow by more than 20% in East and Southeast Asia over the next four years, mostly in China. The adult incontinence market in Japan is also driving fabric demand, the company said.

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Johns Manville quits sorbents and sells lines to Industrial Environmental Products

Johns Manville exited the sorbents business and sold its two sorbent meltblown lines to Industrial Environmental Products, sources said this week.

The two lines, a 60-inch and a 40-inch wide, are being installed in a former Lowe's distribution center in Sandersville, Georgia, east of Macon, under a five-year lease-purchase agreement, Environmental Products officials said.

The production lines along with their auxiliary machines, perforators, inline pad cutters, dimplers, to bond, say, spunbonded or fine-fiber meltblown to coarse meltblown inner layers, accumulators, palletizers and other equipment, were purchased for about \$1.7 million. The plant is expected to employ 100 workers by the end of next year, the officials said.

The newly purchased lines, which will quadruple IEP's current capacity, are expected to be running by the end of June. The company now operates a 20-inch and a 40-inch wide line in Magee, Mississippi, just south of Johns Manville's Richland meltblowing factory, which still owns seven meltblowing lines, according

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NONWOVENS MARKETS

U.S. Monthly Retail Sales

Hygiene products sold at supermarkets, drug stores, and mass merchandisers for the four-week period ended March 19, 2006.

	Dollar sales	% change year ago	% Dollar share	Unit sales ¹	% change year ago	Unit Share of Type
Disposable diapers	\$134,316,000	5.2	100.0	10,821,710	-2.2	100.0
Huggies Disposable (K-C)	\$27,369,960	-0.3	20.4	1,842,719	-5.2	17.0
Pampers Cruisers (P&G)	\$23,581,130	33.5	17.6	1,547,975	13.4	14.3
Pampers Baby Dry (P&G)	\$21,164,160	-9.4	15.8	1,490,215	-15.9	13.8
Private Label (Various)	\$19,863,290	13.2	14.8	2,438,156	9.9	22.5
Huggies Supreme (K-C)	\$9,921,511	22.9	7.4	746,473	8.4	6.9
Luvs Ultra Leakguards (P&G)	\$8,710,709	-30.4	6.5	826,255	-32.9	7.6
Pampers Swaddlers (P&G)	\$8,074,717	35.7	6.0	710,554	23.2	6.6
Luvs Disposable (P&G)	\$5,174,661	21.8	3.9	308,100	22.2	2.8
Huggies Supreme Baby Shaped (K-C)	\$4,152,476	-5.7	3.1	296,118	-9.3	2.7
Huggies Ultratrim (K-C)	\$3,171,134	41.3	2.4	267,048	27.5	2.5
Sanitary napkins/liners	\$63,054,360	0.4	100.0	20,333,750	-0.2	100.0
Always (P&G)	\$24,846,270	2.8	39.4	6,389,593	0.1	31.4
Kotex (K-C)	\$8,228,500	-12.4	13.0	2,826,519	-2.1	13.9
Stayfree (J&J)	\$7,882,979	-12.5	12.5	2,250,734	-19.2	11.1
Private Label (Various)	\$5,931,892	0.2	9.4	2,734,489	-1.0	13.4
Kotex Lightdays (K-C)	\$4,211,628	-7.5	6.7	1,699,501	2.7	8.4
Always Cleanweave (P&G)	\$2,657,270	12.8	4.2	769,033	15.0	3.8
Carefree to Go (J&J)	\$2,004,667	3.4	3.2	1,120,679	-3.4	5.5
Carefree Sanitary (J&J)	\$1,859,906	-5.9	2.9	677,758	-14.9	3.3
Always Fresh (P&G)	\$1,442,559	—	2.3	520,229	—	2.6
Stayfree Dry Max (J&J)	\$875,689	219.7	1.4	235,486	246.2	1.2
Adult incontinence products	\$44,896,270	5.9	100.0	4,762,014	1.5	100.0
Depend (K-C)	\$14,579,570	3.7	32.5	1,156,465	0.5	24.3
Private Label (Various)	\$13,691,480	4.4	30.5	1,499,437	5.0	31.5
Depend Poise (K-C)	\$10,543,240	8.2	23.5	1,394,826	-1.0	29.3
Serenity (SCA)	\$4,662,051	73.8	10.4	498,797	32.6	10.5
Serenity Dry Active Plus (SCA)	\$308,255	18.3	0.7	60,274	14.8	1.3
Entrust Plus (McKesson)	\$252,859	28.4	0.6	25,160	50.9	0.5
Serenity Night and Day (SCA)	\$159,216	-88.9	0.4	32,717	-76.3	0.7
Prevail (First Quality Enterprises)	\$145,860	-33.7	0.3	16,039	-24.0	0.3
Serenity Dry Active (SCA)	\$109,260	-23.9	0.2	33,530	-22.9	0.7
Sure Care (Tyco Healthcare Group)	\$84,946	-32.9	0.2	7,365	-39.0	0.2
Disposable training pants	\$42,798,550	0.7	100.0	3,871,030	-0.3	100.0
Huggies Pull Ups (K-C)	\$17,639,450	-2.1	41.2	1,440,228	-4.6	37.2
Huggies Pull Ups Goodnites (K-C)	\$8,388,699	5.7	19.6	644,005	-0.9	16.6
Private Label (Various)	\$6,851,910	8.6	16.0	867,485	14.0	22.4
Pampers Easy Ups (P&G)	\$4,931,101	-5.5	11.5	435,302	-7.2	11.2
Pampers Feel N Learn (P&G)	\$3,320,974	10.8	7.8	279,938	5.0	7.2
Huggies Little Swimmers (K-C)	\$1,058,711	8.8	2.5	142,723	7.7	3.7
Huggies Convertables (K-C)	\$325,181	-62.4	0.8	23,264	-64.6	0.6
Pampers Disposable (P&G)	\$147,959	—	0.3	17,144	—	0.4
Fitti Disposables (AHP)	\$68,340	7.8	0.2	11,711	3.5	0.3
Snuggems Disposable (K-C)	\$40,692	-34.6	0.1	4,738	-37.0	0.1

1. "Units" refers to the number of packages, not the contents of the packages. For instance, a 10-diaper package and a 20-diaper package are both a single unit.

Data is for the top ten brands sold in the U.S., excluding Alaska and Hawaii, for the listed 52-week period. Figures are gathered from the checkout data of 32,000 supermarkets, drug stores, and mass merchandisers, including Target and K-Mart. Wal-Mart, convenience, club and dollar stores are not included. The data is provided by Information Resources Inc.

NONWOVENS MARKETS

	Dollar sales	% change year ago	% Dollar share	Unit sales ¹	% change year ago	Unit Share of Type
Baby wipes	\$35,815,080	9.6	100.0	9,564,274	5.7	100.0
Private Label (Various)	\$9,936,562	8.8	27.7	3,443,467	-0.7	36.0
Huggies Natural Care (K-C)	\$6,842,097	-17.6	19.1	1,742,495	-11.8	18.2
Pampers Natural Aloe Touch (P&G)	\$4,635,263	-12.2	12.9	829,856	-22.2	8.7
Huggies (K-C)	\$3,821,059	554.0	10.7	716,830	1102.1	7.5
Huggies Supreme Care (K-C)	\$1,467,750	12.3	4.1	284,875	12.0	3.0
Pampers Sensitive Touch (P&G)	\$1,452,679	22.3	4.1	225,892	17.4	2.4
Pampers Kandoo (P&G)	\$1,405,260	-9.1	3.9	390,051	-15.6	4.1
Huggies Pull Ups (K-C)	\$1,038,353	572.9	2.9	330,647	561.0	3.5
Pampers Original Cotton Care (P&G)	\$907,148	-18.0	2.5	239,196	-12.4	2.5
Huggies Supreme (K-C)	\$754,562	16.0	2.1	189,275	14.0	2.0
Moist towelettes	\$14,714,240	6.3	100.0	6,979,774	5.2	100.0
Kleenex Cottonelle Fresh (K-C)	\$3,997,362	6.8	27.2	1,905,984	5.5	27.3
Wet Ones (Playtex Products)	\$2,989,141	-2.0	20.3	1,549,160	1.4	22.2
Kleenex Cottonelle (K-C)	\$2,797,981	44.8	19.0	810,477	38.0	11.6
Private Label (Various)	\$2,068,766	16.9	14.1	1,246,660	20.7	17.9
Scott (K-C)	\$897,427	34.1	6.1	468,312	30.0	6.7
Charmin Fresh Mates	\$663,847	39.5	4.5	326,890	46.2	4.7
Splash N Go (K-C)	\$347,931	-2.6	2.4	196,357	-7.0	2.8
Nice N Clean (PDI)	\$264,182	-11.4	1.8	188,223	-18.0	2.7
Comfort Bath (Sage)	\$162,891	2.2	1.1	33,763	-19.5	0.5
Comfort Shield (Sage)	\$122,825	72.3	0.8	13,015	53.0	0.2
All purpose cleaner cloths	\$17,825,790	15.1	100.0	5,863,929	5.7	100.0
Clorox (Clorox)	\$7,333,727	9.9	41.1	1,945,858	-8.8	33.2
Lysol (Reckitt Benckiser)	\$3,178,604	1.0	17.8	1,049,639	0.9	17.9
Mr. Clean (P&G)	\$2,447,481	8.2	13.7	864,802	3.9	14.7
Private Label (Various)	\$1,885,346	58.9	10.6	885,097	49.6	15.1
Mr. Clean Magic Eraser (P&G)	\$1,225,048	40971400.7	6.9	538,477	53847600.0	9.2
Pledge (SC Johnson)	\$634,240	-16.7	3.6	156,693	-26.4	2.7
Mr. Clean Magic Eraser Duo (P&G)	\$417,206	67.1	2.3	79,724	62.2	1.4
Method (Method)	\$162,990	67.0	0.9	54,413	55.7	0.9
Scotch Brite (3M)	\$147,677	-40.5	0.8	80,936	-25.0	1.4
Brawny (GP)	\$61,526	6.3	0.3	26,327	-9.4	0.4

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FOSS SALE NEAR

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The 53-year-old, family owned Foss Manufacturing sought bankruptcy protection in September after a dispute with its biggest lender, CapitalSource Finance LLC, the nonwovens and polyester fiber producer said at the time.

For its part, CapitalSource, which gave Foss a loan and credit facility of \$30 million, said in court documents that it was lied to and cheated.

Trustee O'Malley expressed confidence that Foss would flourish under a new owner. Both the New Hampshire and Australian operations

were profitable prior to the Chapter 11 filing. The New Hampshire business was saddled with a lot of expenses that were not related to the business, he said.

In court documents, Foss declared that it booked revenues of \$78.5 million in the first nine months of last year; \$85.2 million in 2004; and \$84.0 million in 2003.

JM QUILTS SORBENTS

<<< *continued from page 1*

to *Nonwovens Markets International Company Profiles 2004* book.

A Johns Manville spokesperson could not be reached before deadline.

Meltblown products are a relatively small part of Johns Manville's business.

It is the world's leading roofing substrate manufacturer, with total annual sales exceeding \$2 billion.

IEP, based in Alpharetta, Georgia, was founded by Barry Greer, who has been involved in the sorbents industry for 34 years. Eclipse Ventures LLC, Atlanta, is a minority owner in the firm. IEP sells sorbents worldwide.

NONWOVENS MARKETS

Top U.S. Monthly Imports

Converted and roll goods commodities listed by thousands of dollars (\$000) for the world and top five sending countries.

Nonwoven garments

	Jan 06		Dec 05		Nov 05		Oct 05		Jan 05		Total 05
World	37,643	World	35,171	World	36,310	World	33,786	World	34,432	World	422,745
China	20,014	China	18,805	China	19,144	China	14,869	China	14,607	China	190,095
Mexico	10,473	Mexico	9,464	Mexico	11,563	Mexico	12,436	Mexico	11,619	Mexico	149,947
Honduras	6,522	Honduras	5,775	Honduras	4,719	Honduras	4,686	Honduras	5,877	Honduras	63,348
Thailand	419	Thailand	504	Thailand	543	Thailand	1,266	Thailand	1,503	Thailand	13,317
Canada	73	Taiwan	151	Taiwan	97	Hong Kong	166	Italy	310	Haiti	1,294

Glass nonwoven mattresses, boards

	Jan 06		Dec 05		Nov 05		Oct 05		Jan 05		Total 05
World	26,923	World	25,841	World	26,490	World	24,492	World	22,850	World	266,014
Canada	18,848	Canada	19,441	Canada	21,400	Canada	19,159	Canada	16,227	Canada	198,381
Mexico	2,518	Mexico	2,352	Mexico	1,797	Mexico	2,389	Mexico	3,313	Mexico	24,279
China	2,199	China	1,453	China	1,304	China	1,047	China	1,179	China	16,683
UK	941	UK	936	UK	643	UK	498	Argentina	656	UK	7,914
France	699	Colombia	414	France	302	France	469	Colombia	480	France	4,314

Spunlaced surgical drapes

	Jan 06		Dec 05		Nov 05		Oct 05		Jan 05		Total 05
World	18,238	World	22,306	World	17,554	World	19,615	World	20,214	World	247,013
Mexico	9,696	Mexico	9,516	Mexico	9,719	Mexico	9,733	Mexico	11,575	Mexico	127,106
Dom Rep	3,927	Dom Rep	7,545	China	4,174	Dom Rep	5,001	China	4,490	Dom Rep	59,206
China	3,749	China	4,475	Dom Rep	2,981	China	4,101	Dom Rep	3,821	China	52,302
Thailand	801	Thailand	740	Thailand	677	Thailand	738	Thailand	277	Thailand	7,404
Hong Kong	57	Switzerld	16	France	2	Estonia	30	Taiwan	45	Taiwan	824

Nonwovens of manmade filament, 25-70 gsm

	Jan 06		Dec 05		Nov 05		Oct 05		Jan 05		Total 05
World	17,176	World	12,813	World	13,155	World	12,971	World	15,171	World	165,152
Luxembrg	5,134	Luxembrg	2,279	Luxembrg	3,292	Luxembrg	2,128	Israel	2,164	Luxembrg	23,365
Israel	2,224	Israel	2,096	China	1,442	China	1,502	Luxembrg	1,542	Israel	22,343
China	1,689	China	1,324	Israel	1,130	Israel	1,331	Germany	1,424	China	16,110
Malaysia	888	Malaysia	814	Germany	822	Germany	843	Italy	1,161	Germany	11,726
Canada	823	France	625	Spain	729	Greece	782	Turkey	1,079	Canada	9,135

Nonwovens manufacturing equipment

	Jan 06		Dec 05		Nov 05		Oct 05		Jan 05		Total 05
World	19,245	World	9,416	World	6,611	World	5,742	World	1,911	World	147,811
Germany	17,574	Germany	7,140	Germany	3,852	Italy	3,186	Germany	1,318	Germany	98,149
Portugal	764	France	607	Austria	1,593	Portugal	885	Portugal	459	Italy	20,655
France	632	Portugal	462	Portugal	540	Japan	652	France	97	France	8,941
Austria	191	China	432	Israel	145	Taiwan	377	Austria	22	Austria	7,509
Australia	26	S Korea	364	China	136	Germany	341	Japan	12	Portugal	7,138

Nonwovens of manmade filament, less than 25 gsm

	Jan 06		Dec 05		Nov 05		Oct 05		Jan 05		Total 05
World	10,912	World	11,821	World	10,455	World	9,839	World	10,543	World	133,003
Israel	3,162	Israel	2,851	Israel	2,373	Israel	3,384	Israel	3,571	Israel	41,469
Germany	1,729	Canada	1,713	Mexico	1,959	Canada	1,718	Canada	2,149	Canada	22,670
Mexico	1,417	Mexico	1,496	Canada	1,715	Japan	838	Mexico	968	Brazil	10,915
Brazil	1,151	Germany	1,430	China	896	Brazil	629	Brazil	906	Mexico	10,725
Japan	862	China	1,357	Japan	871	Germany	576	UK	478	Germany	9,518

NONWOVENS MARKETS

Nonwovens of manmade filament, 70-150 gsm

	Jan 06		Dec 05		Nov 05		Oct 05		Jan 05		Total 05
World	6,410	World	6,828	World	5,223	World	5,355	World	7,013	World	75,929
Mexico	1,868	Mexico	1,855	Mexico	1,705	Mexico	1,651	Mexico	2,059	Mexico	22,194
Luxemburg	1,074	Luxemburg	1,164	Germany	729	Canada	778	Germany	878	Canada	8,832
Germany	654	Germany	780	Poland	518	Germany	488	Poland	862	Germany	8,112
Canada	566	Canada	510	Canada	454	Italy	386	Canada	780	Luxemburg	7,242
Israel	377	Poland	410	Italy	403	Poland	386	Italy	561	Poland	5,624

Nonwovens not-of-manmade filament, 25-70 gsm

	Jan 06		Dec 05		Nov 05		Oct 05		Jan 05		Total 05
World	5,291	World	4,705	World	5,106	World	5,194	World	6,701	World	70,830
Finland	1,377	Finland	1,463	Finland	1,951	Japan	1,435	Germany	1,840	Finland	15,066
Japan	1,113	UK	712	UK	941	Finland	1,335	UK	1,639	UK	12,700
UK	549	France	615	France	762	UK	1,028	Finland	1,368	Germany	10,086
France	447	Mexico	459	Mexico	336	France	471	France	333	Japan	7,495
Egypt	412	China	286	Netherlands	187	Malta	198	Japan	262	France	6,500

Nonwovens of manmade filament, more than 150 gsm

	Jan 06		Dec 05		Nov 05		Oct 05		Jan 05		Total 05
World	6,193	World	3,006	World	3,663	World	4,219	World	6,565	World	49,106
Israel	2,938	Belgium	766	Israel	1,174	Mexico	1,246	Israel	4,153	Israel	17,395
Japan	979	Japan	452	Japan	415	Israel	1,105	Japan	756	Mexico	9,403
Canada	444	Mexico	318	Italy	400	Japan	488	France	671	Japan	6,714
Germany	334	China	257	Mexico	365	Germany	231	Mexico	311	Germany	2,601
Mexico	292	Germany	240	Germany	216	Italy	220	S Korea	121	Italy	2,243

Nonwovens not-of-manmade staple fiber, more than 150 gsm

	Jan 06		Dec 05		Nov 05		Oct 05		Jan 05		Total 05
World	3,349	World	4,328	World	2,675	World	2,504	World	2,854	World	41,485
Japan	2,161	Japan	2,246	Japan	1,481	Japan	1,617	Japan	1,595	Japan	20,158
Germany	426	Germany	398	Germany	361	Canada	242	China	553	Germany	6,589
China	300	UK	233	S Korea	223	Germany	201	Germany	347	China	4,539
Canada	215	China	177	Canada	165	China	146	UK	150	UK	3,593
S Korea	98	Canada	135	France	149	UK	134	Canada	139	Canada	2,730

Nonwovens not-of-manmade filament, 70-150 gsm

	Jan 06		Dec 05		Nov 05		Oct 05		Jan 05		Total 05
World	2,599	World	2,382	World	2,468	World	3,264	World	2,202	World	32,443
China	690	China	659	Japan	720	Japan	1,147	Germany	719	Germany	9,463
Japan	449	Germany	489	Germany	480	Germany	961	Spain	350	Japan	8,901
Italy	363	Japan	383	China	375	Italy	273	Japan	255	China	2,381
Germany	276	Mexico	206	Italy	326	UK	253	UK	205	Spain	2,338
S Korea	246	UK	178	UK	166	China	236	Finland	201	UK	2,209

Nonwoven suede not-of-manmade filament, more than 150 gsm

	Jan 06		Dec 05		Nov 05		Oct 05		Jan 05		Total 05
World	1,545	World	1,944	World	1,608	World	3,107	World	1,955	World	28,638
Japan	1,112	Japan	1,693	Japan	943	Japan	2,599	Japan	1,556	Japan	23,095
China	179	Germany	103	Germany	223	S Korea	338	Germany	185	Italy	1,649
Germany	147	China	98	S Korea	134	Germany	115	S Korea	141	Germany	1,573
Brazil	49	Brazil	45	Italy	108	Italy	54	Italy	52	S Korea	899
UK	25	S Korea	2	Brazil	90	France	1	UK	15	China	768

Source: U.S. Department of Commerce.

Patents

DuPont protects novel bicomponent spunmelted fabrics for medical uses

This invention discloses complex non-polypropylene bicomponent spunmelted fabrics that are especially suited to spunbonded-meltblown-spunbonded materials for medical applications.

Bicomponent, or sheath-core, fibers have a sheath polymer with a lower melting point than the core polymer. Fibers of this type are used extensively as heat-activated binder fibers. Fabrics with good heat-sealing properties are also advantageous in some applications. For example, in protective or medical garments, it may be desirable to heat seal seams to avoid the holes that are formed by needle stitching.

For medical end uses, it is also desirable that fabrics may be sterilized with gamma radiation. Traditional polypropylene SMS fabrics are not suitable to gamma sterilization because they discolor and weaken.

DuPont's new fabric comprises a sheath polymer blend of polyethylene and an acid copolymer. The acid copolymer is selected from the group consisting of copolymers of ethylene with methacrylic acid, acrylic acid, or a combination thereof, metal salts of said copolymers (ionomeric polymer), and blends thereof.

The core is selected from the group consisting of polyesters and polyamides, which have a melting temperature about 20 degrees C. higher than the sheath. These fibers may have a round, oval, trilobal or multilobal, flat or hollow cross section.

The weight ratio between the sheath and the core is most preferably between 40:60 and 60:40. For spunbonded end uses, the fabric preferably has a basis weight of between 1.2 osy to 7.0 osy, or 40 gsm to 238 gsm, most preferably between about 1.8 osy to 3.0 osy, or 61 gsm to 102 gsm.

However, when combined with one or more meltblown layers or with a film, the basis weight of an individual spunbonded layer may be much lower; for example, basis weights between 0.3 osy and 0.9 osy, or 10 gsm to 31 gsm,

preferably between 0.5 osy to 0.7 osy, or 17 gsm to 24 gsm.

DuPont claims that thermalbonded spunbonded webs of the new bico fibers have higher grab tensile strength than comparable spunbonded sheath-core webs that do not contain the acid copolymer because of improved bonding between the fibers and fabric layers.

Furthermore, since the acid copolymers are branched materials, they do not generally spin/attenuate as well as linear polymers such as LLDPE. By blending relatively low levels of the

Polymer Group Inc. patents imaged hydroentangled industrial filter media

Needlepunched fabrics are often employed in the manufacture of tough, industrial baghouse filters. But such fabrics have their drawbacks.

Needling tends to break fibers, which reduces a filter's strength. This in turn may require a heavier, and more expensive, material. And needling creates holes that tend to reduce filtration efficiency.

The filter media disclosed in this invention comprises a hydroentangled fabric, based on the use of a fiber web consisting predominantly of polyester staple fibers, typically 2.25 denier, with a basis weight of no more than 12 osy.

Such a filter media exhibits a Mullen burst strength of at least 395 psi, and machine-direction and cross-direction shrinkage of less than 3%, preferably less than 2%. The filter media exhibits a machine-direction tensile strength of at least 105 lb/in, and a cross-direction tensile strength of at least 110 lb/in.

The hydroentanglement process includes imaging the fabric to further enhance its filtration capabilities.

Also, the patent discloses the use of a heat-setting step to activate fusible fibers, strengthening the material.

Besides baghouse filtration, the invention has applications for HVAC frame filtration; food and beverage fil-

acid copolymer with LLDPE in the sheath of the spunbond fibers, improved spinnability is achieved in addition to providing a spunbonded fabric having an improved combination of heat sealing properties, grab tensile strength, and reduced cost compared to using the acid copolymer alone in the sheath.

Potential end uses for the spunbonded fabric of the present invention include heat seal tapes and heat-sealable packaging materials. Multilayer composite sheets of the present invention are especially useful in medical or other garments and in heat-sealable barrier packaging such as medical packaging.

"Multiple component spunbond web"; U.S. 7,008,888 (March 7, 2006); filed: July 24, 2003. Assignee: E. I. du Pont de Nemours and Company

tration; and coalescing filtration for diesel engines and marine applications. Coalescing filter media are commonly employed within a frame and housing located either upstream or downstream of a liquid hydrocarbon pump.

Still other potential filtration applications include vacuum equipment, mist elimination, turbine intake, automotive and truck transmission and air intake, coolant, chemical, including medical and pharmaceutical filtration, power generation, office equipment, paper machine clothing felt and drain layer, and others.

"Hydroentangled filter media and method"; U.S. 7,015,158 (March 21, 2006); filed: Jan. 16, 2002. Assignee: Polymer Group, Inc. (North Charleston, SC). Inventors: Charles Eric Pearce, Sergio de Leon, Michael Putnam, Cheryl Carlson, Ping Hao.

Other patents of interest.

"Binder for inorganic fiber and heat insulating acoustic inorganic fiber material"; U.S. 7,019,071 (March 28, 2006); filed: Nov. 5, 2002. Assignee: Asahi Fiber Glass Company, Limited (Tokyo, Japan). Inventors: Akira Inoue, Yuka Masaki, Manabu Iizuka.

A binder for inorganic fiber is disclosed. This material comprises an

aldehyde condensable thermosetting resin precursor and a fluorocarbon compound having a polyfluoroalkyl group and a functional group, which may be a hydroxyl group, an amino group, an epoxy group or a methylol group.

“Nonwoven material for low friction bearing surfaces”; U.S. 7,015,159 (March 21, 2006); filed: July 24, 2001. Assignee: E. I. du Pont de Nemours and Company (Wilmington, DE). Inventors: Jaime A. Ampuero Auza, Mikhail R. Levit, Arthur R. Nelson.

The present invention relates to a saturable nonwoven material comprising fluoropolymer floc and aramid floc, and a binder, wherein the binder is up to about 20% by weight of the saturable nonwoven material; the material has a basis weight of about 17 gsm to about 810 gsm and a thickness of about 0.02 mm to about 8.2 mm. Such nonwovens may be used as a liner material for self-lubricating bearing surfaces, as a sealant, in filtration systems, as electrical insulation and in other applications.

“Method of binding binder treated particles to fibers”; U.S. 7,018,490 (March 28, 2006); filed: May 7, 2003. Assignee: Weyerhaeuser Company (Federal Way, WA). Inventors: Michael R. Hansen, Richard H. Young, Sr.

A binder is applied to particles (especially superabsorbent particles) which are then combined with fibers to bind the particles to the fibers. The particles have functional sites for forming a hydrogen bond or a coordinate covalent bond. The fibers (particularly woodpulp fibers) have hydrogen bonding functional sites. The binder comprises binder molecules, the binder molecules having at least one functional group that is capable of forming a hydrogen bond or a coordinate covalent bond with the particles, and at least one functional group that is capable of forming a hydrogen bond with the fibers. A substantial portion of the particles that are adhered to the fibers may be adhered in particulate form by hydrogen bonds or coordinate covalent bonds to the binder, and the binder in turn may be adhered to the fibers by hydrogen bonds. Fibers containing particles bound by this method are easily densified.

“Method of making an absorbent structure having high integrity”;

U.S. 7,018,497 (March 28, 2006); filed: April 9, 2003. Assignee: Kimberly-Clark Worldwide, Inc. (Neenah, WI). Inventors: Young C. Ko, Kambiz B. Makoui, Richard H. Thiessen, Jason M. Laumer.

A method of making a nonwoven fabric with high absorbency and having high integrity is provided. A first superabsorbent polymer precursor composition including a monomer, a crosslinking agent and a reducing agent, and a second superabsorbent polymer precursor composition including a monomer, a crosslinking agent and an oxidizing agent are combined at a plurality of discrete, spaced apart locations on or in a nonwoven substrate. The precursor compositions react with each other to form discrete, spaced apart microdomains of superabsorbent polymer adhering to the substrate. The spacing is sufficient to avoid gel blocking when the microdomains swell due to liquid absorption. The adhesion to the substrate is sufficient to maintain spacings between the microdomains of superabsorbent polymer.

“Apparatus for forming fibers”; U.S. 7,018,188 (March 28, 2006); filed: April 8, 2003. Assignee: The Procter & Gamble Company (Cincinnati, OH). Inventors: Michael David James, Stanford Royce Jackson, Savas Aydore, Hasan Eroglu, Donald Eugene Ensign, Paul Dennis Trokhan, David Lee Moore, Edwin Arthur Stewart.

The present invention is directed to an apparatus for forming fibers by the dry spin, wet spin or meltblowing processes. There are multiple embodiments of the apparatus. One embodiment includes a die assembly having a plurality of nozzles, one or more attenuation medium passages and a cover plate. The cover plate has an opening into which one or more of the nozzles may extend. The attenuation medium passages have a minimum cross section area and the cover plate opening has a limiting cross section area such that the minimum cross section area of the attenuation medium passages is greater than the limiting cross section area of the cover plate opening. A variety of advantages are claimed for the apparatus.

Automotive

U.S. auto sector travels “very difficult” road of costly labor & materials

The U.S. auto supplier sector is dominated by low-rated, distressed companies operating in a “very difficult” environment, and there appears to be little reason to expect conditions to improve in the near term, according to the Standard & Poor’s Ratings Services report, “Industry Report Card: North American Auto Suppliers/Auto Retailers.”

“The sector has already faced a combination of vehicle production cuts, high raw-material costs, unfavorable product mix shifts, and ongoing pricing pressure from a weakened customer base, difficulties that have caused most of these companies’ earnings and cash flow to decline dramatically,” S&P credit analyst Martin King said earlier this month.

A string of companies have been forced to file for Chapter 11 bankruptcy protection, including several large ones with leading market share positions. This year, several issues threaten to exacerbate the problems.

For one, we are concerned about whether the launches of several new vehicles will be successful, specifically those of high-volume SUVs and pickups introduced by General Motors Corp. Sales of these vehicles were under pressure last year as fuel prices remained high and existing products matured. We are also concerned about high gasoline prices, which depressed demand for large, high-profit-margin vehicles during most of 2005, S&P said in a press release.

Another perennial issue is high raw material prices, especially for steel, plastic resin, rubber, and lead. The costs for these have fluctuated significantly in recent years and remain at historically high levels.

Meanwhile, the market shares of Ford Motor Co. and GM have continued their long decline. Despite concerted efforts to diversify their customer bases, most North American auto suppliers will remain overly dependent on these two automakers. There could also be potential labor disruptions as auto suppliers and vehicle manufacturers

NONWOVENS MARKETS

attempt to reduce the burden of their high labor costs.

Auto suppliers also face liquidity pressures. High debt levels have limited access to bank lines, and negative investor sentiment has hindered the ability to raise new capital.

Faurecia reported Q1 sales up 3% to €3B

France-based automotive interiors supplier Faurecia said this week that first-quarter sales increased by 3.4% to €2.9 billion, excluding monoliths and at constant exchange rates, on a slight downturn in European automotive production.

By division, Automotive Seating generated sales of €1.2 billion in the first quarter, a decline of 2.4% at constant exchange rates compared with the year-ago period. Sales were hurt by a sharp downturn in business with French automakers, a trend that was partially offset by a rise in production of the Audi Q7, the BMW 3 Series and the new Toyota Yaris.

Outside Europe, revenues increased by 16% in North America, thanks in particular to sales of General Motors Pontiac G6 and Chevrolet Malibu cars and Chrysler vehicles.

Sales of other vehicle interiors rose by 7.3% at constant exchange rates. The impact of favorable exchange rates was 2.4%. Sales benefited from a rise in production of the Mercedes-Benz S Class and the Volkswagen Passat in Europe and the start of sales in China. Sales in North America increased by 40%, due to a rise in production of the Volkswagen Jetta and the Chrysler PT Cruiser.

Total sales for the Interior Modules segment amounted to €2.1 billion, a 1.5% increase at constant exchange rates compared with the first quarter of 2005.

The Exhaust Systems division saw sales rise to €648.0 million, an increase of 23.0% excluding monoliths and at constant exchange rates. Exhaust Systems continued to expand in North America with a 41% sales rise, excluding monoliths, thanks in particular to increased business with Ford, including the Fusion and Explorer platforms. In Asia, revenues grew by 53% thanks to sales with Hyundai-Kia in South Korea and with Ford, Mazda and PSA Peugeot Citroën in China. In Europe, sales

increased by 10% thanks to the Audi A6, Mercedes-Benz A Class and Volvo S40.

MITSUI ADDS LINE

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The Thailand business, which launched operations in 2003, had 2005 sales of \$33 million. It employed 107 workers. In addition to producing spunbonded fabric, the business plans to begin in June commercial production of breathable film for diapers, the company said.

In Japan, Mitsui Chemicals annually produces 34,000 tonnes of hygiene spunbonded fabric.

M&A

ADM absorbs natural SAP maker Lysac Tech.

Starch-based superabsorbent polymer producer Lysac Technologies Inc. was purchased last week by one of its suppliers, agricultural processing company Archer Daniels Midland Co. Financial terms were not disclosed.

Lysac will continue to operate with the same staff from Boucherville, Quebec, Canada, a Lysac spokeswoman said.

The eight-year-old firm, which raised about C\$15 million since its launch, primarily sells products for the feminine hygiene market. It is developing materials for baby and adult diapers, the spokeswoman said.

The disposable hygiene market took a renewed interest in Lysac last year when the availability of conventional petroleum-based superabsorbents tightened and prices jumped, the spokeswoman said. She declined to talk about the firm's revenues, growth or product pricing.

"Bio-based absorbent polymers are cost effective, and they can be used in conjunction with traditional absorbents to extend or partially replace the petroleum-based product," ADM Chairman, President and CEO G. Allen Andreas said in a press release. "ADM is committed to using bio-based resources to manufacture products, like... absorbent polymers, that are traditionally made from petroleum."

Illinois-based ADM had sales last year of \$35.9 billion. It employs more than 25,000 workers.

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