

7 Documents

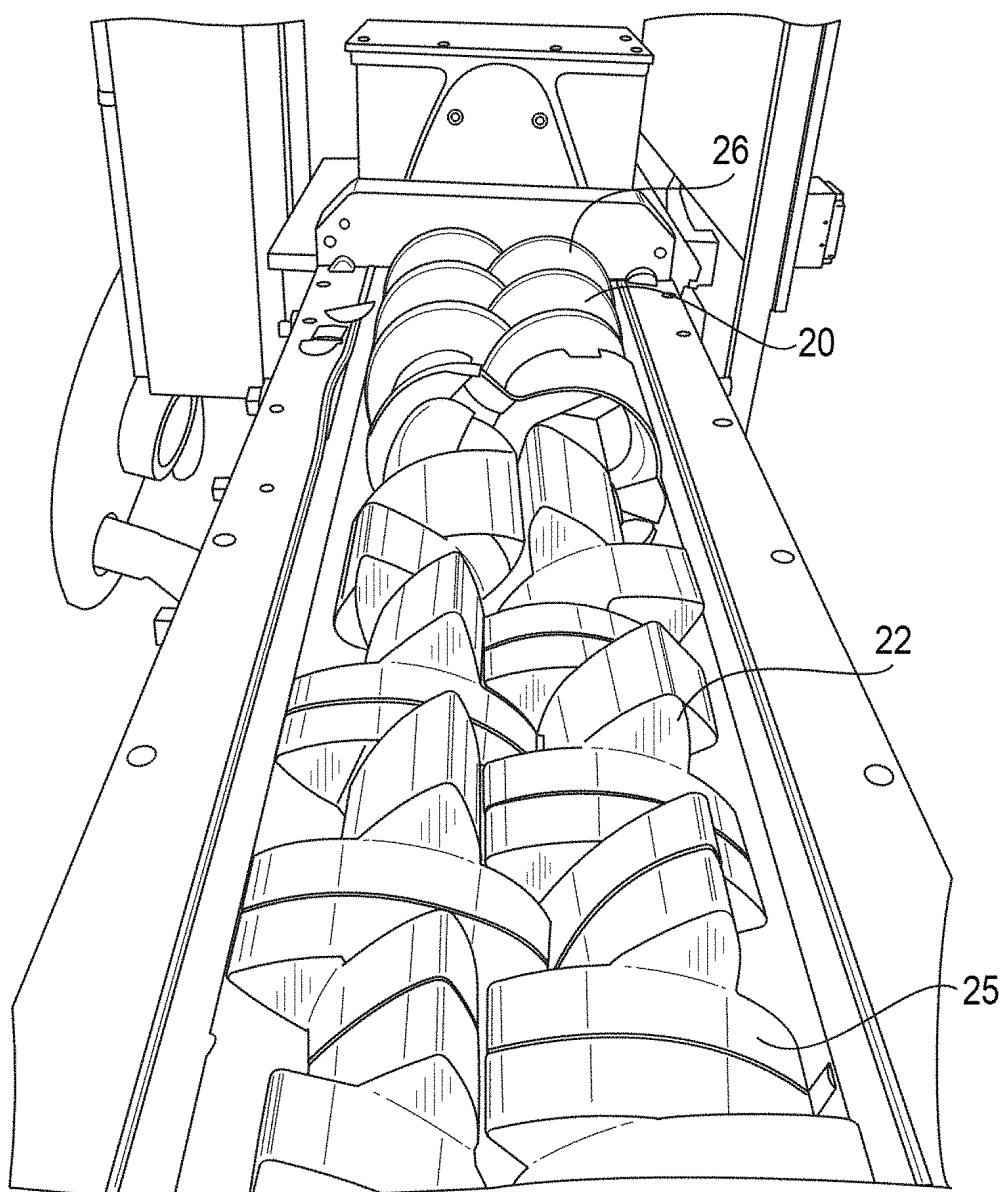
Publication numbers	Title	Current assignees
EP3493959 A1	A method for producing fiber reinforced cementitious slurry using a multi-stage continuous mixer	USG-UNITED STATES GYPSUM
EP3493958 A1	Continuous methods of making fiber reinforced concrete panels	USG-UNITED STATES GYPSUM
US5702787 A	Molded articles having an inorganically filled organic polymer matrix	E KHASHOGGI INDUSTRIES
US5691014 A	Coated articles having an inorganically filled organic polymer matrix	E KHASHOGGI INDUSTRIES
US5705239 A	Molded articles having an inorganically filled organic polymer matrix	EARTHSHELL SPE
US5545450 A	Molded articles having an inorganically filled organic polymer matrix	EARTHSHELL SPE
US5658603 A	Systems for molding articles having an inorganically filled organic polymer matrix	EARTHSHELL SPE

Family 1/7 - FAMPAT - ©Questel

Title

(EP3493959)

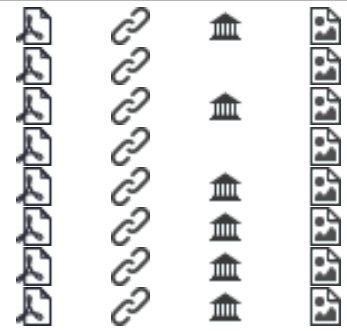
A method for producing fiber reinforced cementitious slurry using a multi-stage continuous mixer

Images**Publication numbers with kind code & date**

US10646837	B2	2020-05-12	US10646837
JP2019524499	A	2019-09-05	JP2019524499
VN64978	A	2019-08-26	VN--64978
US20190217259	A1	2019-07-18	US20190217259
MX2019001495	A	2019-07-04	MX2019001495
CL2019000296	A1	2019-06-14	CL2019000296
EP3493959	A1	2019-06-12	EP3493959
BR112019002206	A2	2019-05-14	BR112019002206
IN201917007117	A	2019-05-10	IN201917007117
US10272399	B2	2019-04-30	US10272399
KR10-2019-0039416	A	2019-04-11	KR20190039416



CN109562529	A	2019-04-02	CN109562529
CO2019001770	A2	2019-03-18	CO2019001770
AU2017305506	A1	2019-03-14	AU2017305506
PE20190285	A1	2019-02-27	PE028502019
BR112019002206	A1	2019-02-12	BR112019002206
CA3032833	A1	2018-02-08	CA3032833
US20180036693	A1	2018-02-08	US20180036693
WO2018/027095	A1	2018-02-08	WO201827095



Abstract

(EP3493959)

A method in which a stream (5) of dry cementitious powder from a dry powder feeder (2) passes through a dry cementitious powder inlet conduit (5a) to feed a first feed section (20) of a fiber-slurry mixer (32). An aqueous medium stream (7) passes through at least one aqueous medium stream conduit (7a) to feed a first mixing section (22) of the fiber-slurry mixer (32). A stream (34) of reinforcing fibers passes from a fiber feeder (33) through a reinforcing fibers stream conduit (34a) to feed a second mixing section (24) of the fiber-slurry mixer (32). The stream (5) of dry cementitious powder, aqueous medium stream (7), and stream (34) of reinforcing fibers combine in the fiber-slurry mixer (32) to make a stream of fiber-cement mixture (36) which discharges through a discharge conduit (36a) at a downstream end of the mixer (32).

Inventors

DUBEY ASHISH

GROZA PETER B

NELSON CHRISTOPHER R

Latest standardized assignees - inventors removed

USG-UNITED STATES GYPSUM

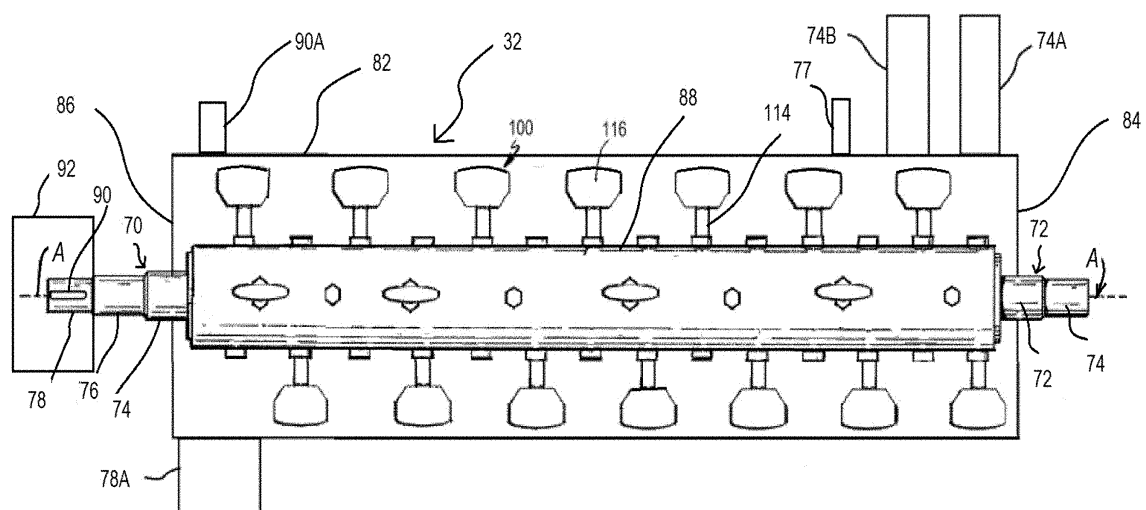
Family 2/7 - FAMPAT - ©Questel

Title

(EP3493958)

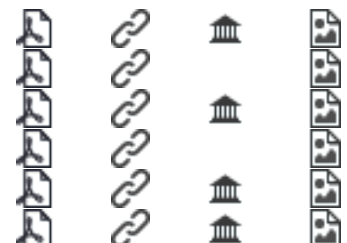
Continuous methods of making fiber reinforced concrete panels

Images



Publication numbers with kind code & date

JP2019527638	A	2019-10-03	JP2019527638
VN64968	A	2019-08-26	VN--64968
EP3493958	A1	2019-06-12	EP3493958
MX2019001256	A	2019-05-20	MX2019001256
IN201917007518	A	2019-05-17	IN201917007518
BR112019001847	A2	2019-05-07	BR112019001847



CL2019000280	A1	2019-04-22	CL201900280				
KR10-2019-0039150	A	2019-04-10	KR20190039150				
CN109562528	A	2019-04-02	CN109562528				
CO2019001768	A2	2019-03-08	CO2019001768				
AU2017305511	A1	2019-03-07	AU2017305511				
PE20190220	A1	2019-02-13	PE022002019				
BR112019001847	A1	2019-02-05	BR112019001847				
CA3032834	A1	2018-02-08	CA3032834				
US20180036912	A1	2018-02-08	US20180036912				
WO2018/027100	A1	2018-02-08	WO201827100				

Abstract

(EP3493958)

Continuous method including: mixing water (7) and cementitious powder (5) to form slurry (3); mixing the slurry (3) and reinforcement fibers (34) in a single pass horizontal continuous mixer (32,132) to form fiber-slurry mixture (36,46), the mixer (32) including an elongated mixing chamber (62,163) having a reinforcement fiber inlet port (74B,134A), and upstream of the fiber inlet port (74B,134A) is an inlet port (74A) to introduce water and cementitious powder together as one stream or at least two inlet ports (105A,107A) to introduce water and dry cementitious powder separately as separate streams into the chamber (62,163), a rotating horizontal shaft/s (88,129) within the chamber (62,163), part of the chamber (62,163) for mixing the fibers (34) and slurry (3) and moving the fiber-slurry mixture to a mixture outlet; discharging the fiber-slurry mixture from the mixer outlet (78A,136A); forming and setting the fiber-slurry mixture (36,46) on a moving surface; cutting the set mixture (36,46) into fiber reinforced concrete panels (55) and removing the panels (55) from the moving surface.

Inventors

DUBEY ASHISH

GROZA PETER B

NELSON CHRISTOPHER R

Latest standardized assignees - inventors removed

USG-UNITED STATES GYPSUM

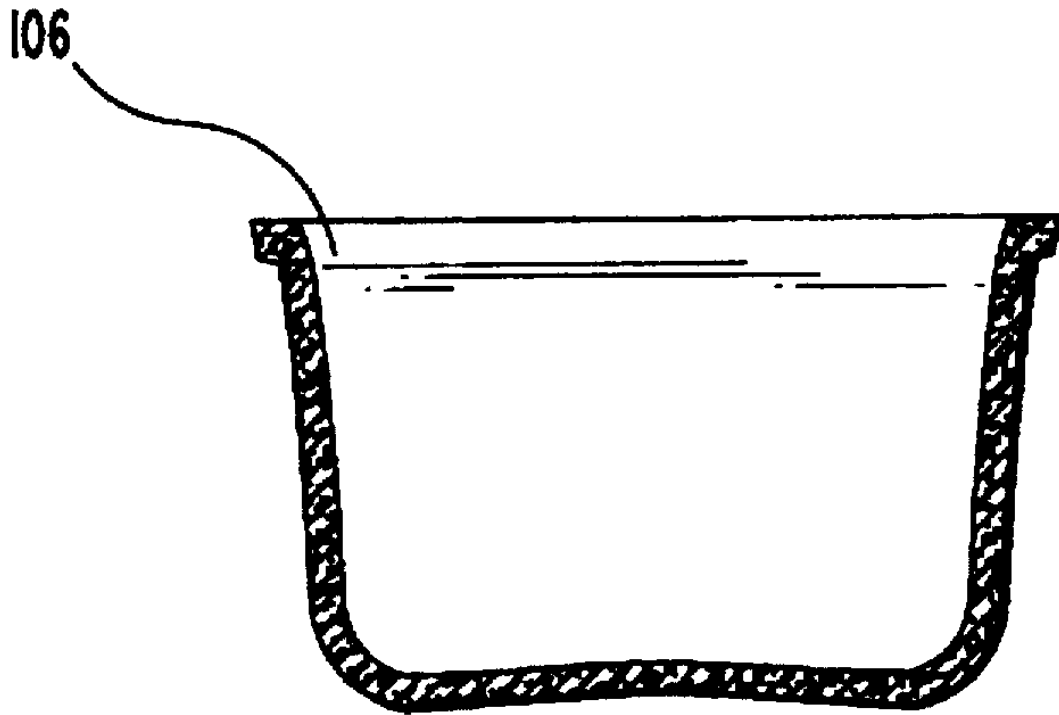
Family 3/7 - FAMPAT - ©Questel

Title

(US5702787)

Molded articles having an inorganically filled organic polymer matrix

Images

**Publication numbers with kind code & date**[US5702787](#)

A

1997-12-30

US5702787

**Abstract**

(US5702787)

Compositions, methods, and systems for manufacturing articles, particularly containers and packaging materials, having a highly inorganically filled matrix. Suitable inorganically filled mixtures are prepared by mixing together an organic polymer binder, water, one or more aggregate materials, fibers, and optional admixtures in the correct proportions in order to form an article which has the desired performance criteria. The inorganically filled mixtures are molded to fashion a portion of the mixture into a form stable shape for the desired article. Once the article has obtained form stability, the article is removed from the mold and allowed to harden to gain strength. The articles may have properties substantially similar to articles presently made from traditional materials like paper, paperboard, polystyrene, plastic, or metal. They have especial utility in the mass production of containers, particularly food and beverage containers.

Inventors

ANDERSEN PER JUST

HODSON SIMON K

Latest standardized assignees - inventors removed

E KHASHOGGI INDUSTRIES

Family 4/7 - FAMPAT - ©Questel

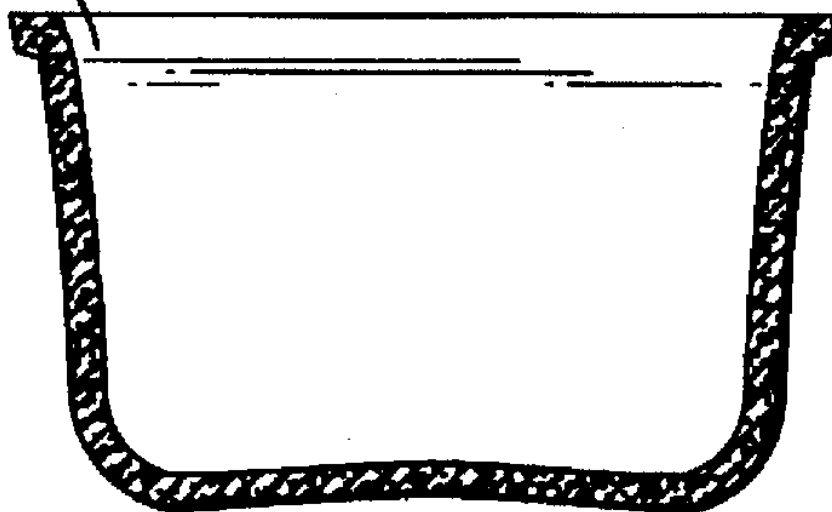
Title

(US5691014)

Coated articles having an inorganically filled organic polymer matrix

Images

106

**Publication numbers with kind code & date**[US5691014](#)

A 1997-11-25

US5691014

**Abstract**

(US5691014)

Compositions, methods, and systems for manufacturing articles, particularly containers and packaging materials, having a highly inorganically filled matrix. Suitable inorganically filled mixtures are prepared by mixing together an organic polymer binder, water, one or more aggregate materials, fibers, and optional admixtures in the correct proportions in order to form an article which has the desired performance criteria. The inorganically filled mixtures are molded to fashion a portion of the mixture into a form stable shape for the desired article. Once the article has obtained form stability, the article is removed from the mold and allowed to harden to gain strength. The articles may have properties substantially similar to articles presently made from traditional materials like paper, paperboard, polystyrene, plastic, or metal. They have especial utility in the mass production of containers, particularly food and beverage containers.

Inventors

ANDERSEN PER JUST

HODSON SIMON K

Latest standardized assignees - inventors removed

E KHASHOGGI INDUSTRIES

Family 5/7 - FAMPAT - ©Questel

Title

(US5705239)

Molded articles having an inorganically filled organic polymer matrix

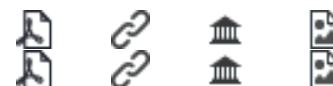
Images

U.S. PATENT DOCUMENTS

1,234,692	7/1917	Ignacyr .	4,044,166	8/1977	Koizumi .
1,427,103	8/1922	Haenicke .	4,053,346	10/1977	Amberg et al .
1,954,117	4/1934	Caldwell .	4,070,196	1/1978	Kraak et al .
1,966,538	7/1934	Stewart .	4,070,199	1/1978	Downing et al .
2,045,099	6/1936	Pond .	4,070,953	1/1978	Richards et al .
2,170,102	8/1939	Thompson .	4,072,549	2/1978	Amberg et al .
2,205,735	6/1940	Schever .	4,073,658	2/1978	Ohtani et al .
2,307,529	1/1943	Macfildowie .	4,076,846	2/1978	Nakatsuka et al .
2,432,971	12/1947	Rothman et al .	4,077,809	3/1978	Phungian et al .
2,549,507	4/1951	Morgan et al .	4,080,213	3/1978	Mori et al .
2,629,567	2/1953	Kaveler .	4,084,980	4/1978	Motoki .
2,700,615	1/1955	Heisner .	4,085,001	4/1978	Pekawatari et al .
2,754,207	7/1956	Schur et al .	4,089,691	5/1978	Cummisford et al .
2,793,957	5/1957	Mungold et al .	4,093,690	6/1978	Murray .
2,820,713	1/1958	Wagner .	4,117,059	9/1978	Murray .
2,837,435	6/1958	Miller et al .	4,117,060	9/1978	Murray .
2,943,013	6/1960	Arjester .	4,121,402	10/1978	Cress et al .
2,959,489	11/1960	Wagner .	4,124,550	11/1978	Kobayashi et al .
2,968,561	1/1961	Bimkrant .	4,132,555	1/1979	Barrable .
3,006,615	10/1961	Mason, Jr. .	4,133,619	1/1979	Wise .
3,107,222	11/1961	Ragan .	4,135,940	1/1979	Peltier .
3,127,266	3/1962	Wilke .	4,149,550	4/1979	Cress et al .
3,170,258	4/1962	Wagner .	4,157,998	6/1979	Bentson et al .
3,142,578	7/1962	Denning .	4,158,989	6/1979	Barr .
3,182,595	9/1962	Pye .	4,159,302	6/1979	Greve et al .
3,197,329	7/1963	Ragan .	4,172,154	10/1979	von Rymon Lipinski .
3,117,014	1/1964	Klug .	4,185,923	1/1980	Bouette et al .
3,169,877	2/1965	Bartels et al .	4,187,768	2/1980	Suzuki .
3,215,549	11/1965	Enison .	4,188,731	2/1980	Valore .
3,253,978	5/1966	Bodendorf et al .	4,196,161	4/1980	Toffolon et al .
3,305,613	2/1967	Spence .	4,209,336	6/1980	Previte .
3,366,961	2/1967	Spence .	4,210,490	7/1980	Taylor .
3,356,779	12/1967	Schulze .	4,225,247	9/1980	Hodson .
3,432,317	3/1969	Kelly et al .	4,225,357	9/1980	Hodson .
3,458,379	7/1969	Owens et al .	4,225,383	9/1980	McReynolds
3,468,993	9/1969	Riedlich .	4,230,902	10/1980	Lustig et al .
3,470,005	9/1969	Flachsenberg et al .	4,233,080	11/1980	Koepfel .
3,520,707	7/1970	Steinberg et al .	4,233,368	11/1980	Buehr et al .
3,526,172	9/1970	Szaat .	4,234,344	11/1980	Lawley et al .
3,579,366	5/1971	Rehman .	4,239,716	12/1980	Ishida et al .
3,683,760	8/1972	Silva .	4,244,781	1/1981	Hockman
3,697,366	10/1972	Hadlock et al .	4,248,664	2/1981	Adkinson et al .
3,745,891	7/1973	Hodendoerfer .	4,249,991	2/1981	Baes et al .
3,753,749	8/1973	Nair .	4,257,710	3/1981	Delouigne et al .
3,754,954	8/1973	Gabriel .	4,261,754	4/1981	Krenschel et al .
3,759,729	9/1973	Fahn .	4,269,657	5/1981	Gomez et al .
3,770,859	11/1973	Bevan .	4,271,228	6/1981	Fosnet et al .
3,806,571	4/1974	Rommank et al .	4,272,198	6/1981	Velikov et al .
3,824,107	7/1974	Weiss .	4,279,695	7/1981	Winterbottom .
3,827,896	8/1974	Copeland .	4,287,247	9/1981	Reil et al .
3,841,885	10/1974	Jakel .	4,299,790	11/1981	Greenberg .
3,855,908	12/1974	Schmidt et al .	4,303,690	12/1981	Haas, Sr. et al .
3,857,715	12/1974	Humphrey .	4,305,758	12/1981	Fowers et al .
3,902,912	9/1975	Wolf .	4,306,059	12/1981	Yokobayashi et al .
3,904,341	9/1975	Fatti .	4,310,996	1/1982	Minvey et al .
3,908,523	9/1975	Shikaya .	4,313,997	2/1982	Ruff et al .
3,914,359	10/1975	Bevan .	4,326,891	4/1982	Sadler .
3,917,781	11/1975	Gabriel et al .	4,328,136	5/1982	Blount .
3,927,163	12/1975	Gabriel et al .	4,329,177	5/1982	George .
3,952,130	4/1976	Nason .	4,353,748	10/1982	Hitchell et al .
3,954,490	5/1976	Cockcroft .	4,370,166	1/1983	Powers et al .
3,968,004	7/1976	Coffey et al .	4,373,957	2/1983	Pedersen .
3,989,534	11/1976	Phungian et al .	4,373,992	2/1983	Bondoc .
3,998,651	12/1976	Haudouin et al .	4,377,440	3/1983	Grasland .
4,002,482	1/1977	Cohen .	4,378,271	3/1983	Hargreaves et al .
4,017,321	4/1977	Reigher .	4,379,198	4/1983	Jacschke et al .
4,017,324	4/1977	Eggers .	4,383,862	5/1983	Dyson .
4,028,454	6/1977	Davidovits .	4,394,930	7/1983	Korpmann .
4,040,851	3/1977	Ziegler .	4,406,703	9/1983	Guthrie et al .
4,043,862	8/1977	Roberts .	4,410,366	10/1983	Buchall .
			4,410,571	10/1983	Korpmann .
			4,415,366	11/1983	Copenning .

Publication numbers with kind code & date

US6090195	A	2000-07-18	US6090195
US5705239	A	1998-01-06	US5705239



Abstract

(US5705239)

Compositions, methods, and systems for manufacturing articles, particularly containers and packaging materials, having a highly inorganically filled matrix. Suitable inorganically filled mixtures are prepared by mixing together an organic polymer binder, water, one or more aggregate materials, fibers, and optional admixtures in the correct proportions in order to form an article which has the desired performance criteria. The inorganically filled mixtures are molded to fashion a portion of the mixture into a form stable shape for the desired article. Once the article has obtained form stability, the article is removed from the mold and allowed to harden to gain strength. The articles may have properties substantially similar to articles

presently made from traditional materials like paper, paperboard, polystyrene, plastic, or metal. They have especial utility in the mass production of containers, particularly food and beverage containers.

Inventors

ANDERSEN PER JUST

HODSON SIMON K

Latest standardized assignees - inventors removed

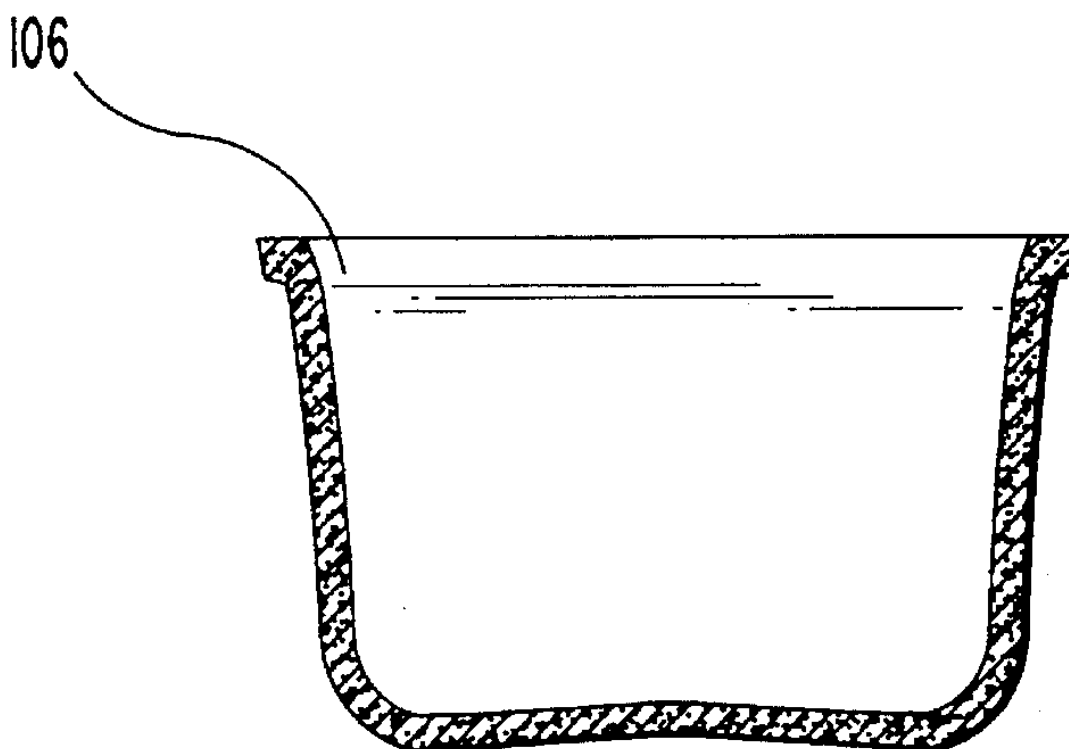
EARTHSHELL SPE

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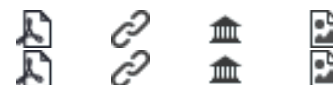
Title

(US5545450)

Molded articles having an inorganically filled organic polymer matrix

Images**Publication numbers with kind code & date**

US5830305	A	1998-11-03	US5830305
US5545450	A	1996-08-13	US5545450

**Abstract**

(US5545450)

Compositions, methods, and systems for manufacturing articles, particularly containers and packaging materials, having a highly inorganically filled matrix. Suitable inorganically filled mixtures are prepared by mixing together an organic polymer binder, water, one or more aggregate materials, fibers, and optional admixtures in the correct proportions in order to form an article which has the desired performance criteria. The inorganically filled mixtures are molded to fashion a portion of the mixture into a form stable shape for the desired article. Once the article has obtained form stability, the article is removed from the mold and allowed to harden to gain strength. The articles may have properties substantially similar to articles presently made from traditional materials like paper, paperboard, polystyrene, plastic, or metal. They have especial utility in the mass production of containers, particularly food and beverage containers.

Inventors

ANDERSEN PER JUST

HODSON SIMON K

Latest standardized assignees - inventors removed

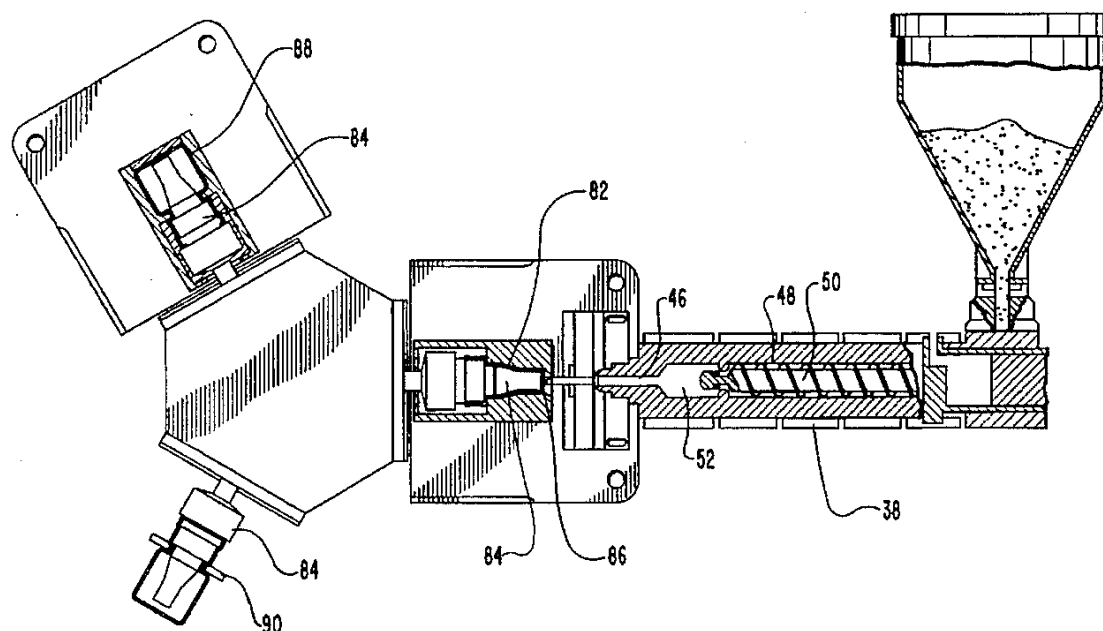
EARTHSHELL SPE

Family 7/7 - FAMPAT - ©Questel

Title

(US5658603)

Systems for molding articles having an inorganically filled organic polymer matrix

Images**Publication numbers with kind code & date**[US5658603](#)

A

1997-08-19

US5658603

**Abstract**

(US5658603)

Compositions, methods, and systems for manufacturing articles, particularly containers and packaging materials, having a highly inorganically filled matrix. Suitable inorganically filled mixtures are prepared by mixing together an organic polymer binder, water, one or more aggregate materials, fibers, and optional admixtures in the correct proportions in order to form an article which has the desired performance criteria. The inorganically filled mixtures are molded to fashion a portion of the mixture into a form stable shape for the desired article. Once the article has obtained form stability, the article is removed from the mold and allowed to harden to gain strength. The articles may have properties substantially similar to articles presently made from traditional materials like paper, paperboard, polystyrene, plastic, or metal. They have especial utility in the mass production of containers, particularly food and beverage containers.

Inventors

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HODSON SIMON K

Latest standardized assignees - inventors removed

EARTHSHELL SPE