

INTERNATIONAL SEARCH REPORT

International application No.

PCT/BR2020/050393

A. CLASSIFICATION OF SUBJECT MATTER

IPC: B29C 48/30 (2019.01), B29C 48/36 (2019.01), E04D 1/20 (2020.01)**CPC: B29C 48/011 (2020.01), B29C 48/0014 (2020.01), B29C 48/30 (2019.01), B29C 48/36 (2019.01), E04D 1/20 (2019.01)**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B29C 48/011 (2020.01), B29C 48/0014 (2020.01), B29C 48/30 (2019.01), B29C 48/36 (2019.01), E04D 1/20 (2019.01)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Banco de Patentes Brasileiro INPI-Br

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Derwent Innovation, ESPACENET, USPTO.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 8017052 B2 (CERTAIN TEED CORP [US]) 13 September 2011 (2011-09-13) The whole document -----	1-2
Y	US 6536177 BI (ITALIANE FRANK LANE [US]; SCIARRA III JOSEPH [US]) 25 March 2003 (2003-03-25) The whole document -----	1-2
Y	US 5318737 A (ROHM HAAS [US]) 07 June 1994 (1994-06-07) The whole document -----	1-2
Y	US 5401154 A (CONTINENTAL STRUCTURAL PLASTIC [US]) 28 March 1995 (1995-03-28) The whole document -----	1-2

☒ Further documents are listed in the continuation of Box C.
☒ See patent family annex.

* Special categories of cited documents:

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"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

20/10/2020

Date of mailing of the international search report

10/11/2020

Name and mailing address of the ISA/


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International application No.

PCT/BR2020/050393

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5615523 A (OWENS CORNING FIBERGLAS TECH [US]) 01 April 1997 (1997-04-01) The whole document -----	1-2
A	US 4671040 A (BRAITHWAITE JR CHARLES H) 09 June 1987 (1987-06-09) The whole document -----	1-2
A	US 4396665 A (GRACE W R CO) 02 August 1983 (1983-08-02) The whole document -----	1-2

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/BR2020/050393

US 8017052 B2	2011-09-13	US 2010127425 A1	2010-05-27
		CA 2469546 A1	2004-12-02
		CA 2553186 A1	2007-03-15
		US 2007022692 A1	2007-02-01
		US 7351462 B2	2008-04-01
		US 2006029775 A1	2006-02-09
		US 7785510 B2	2010-08-31
		US 2007266562 A1	2007-11-22
		US 8206807 B2	2012-06-26
		US 2010159053 A1	2010-06-24
		US 8337188 B2	2012-12-25
		US 2004241476 A1	2004-12-02
-----	-----	-----	-----
US 6536177 B1	2003-03-25	AU 4933901 A	2001-10-08
		CA 2422628 A1	2001-10-04
		WO 0172514 A1	2001-10-04
-----	-----	-----	-----
US 5318737 A	1994-06-07	AU 7713291 A	1991-11-28
		BR 9102077 A	1991-12-24
		CA 2042452 A1	1991-11-26
		EP 0458520 A2	1991-11-27
		HU 911754 D0	1991-12-30
		HU T62615 A	1993-05-28
		IE 911789 A1	1991-12-04
		IL 98245 D0	1992-06-21
		JP H04232049 A	1992-08-20
		KR 910019765 A	1991-12-19
		NO 911983 D0	1991-05-23
		ZA 913829 B	1992-02-26
-----	-----	-----	-----
US 5401154 A	1995-03-28	None	
-----	-----	-----	-----
US 5615523 A	1997-04-01	AU5539396A	1996-11-18
		WO9634162A1	1996-10-31
-----	-----	-----	-----
US 4671040 A	1987-06-09	US 4443520 A	1984-04-17
-----	-----	-----	-----
US 4396665 A	1983-08-02	AR 229094 A1	1983-06-15
		AU 7087481 A	1981-12-24
		AU 547628 B2	1985-10-31
		BR 8103739 A	1982-03-02
		CA 1168971 A	1984-06-12
		GB 2078612 A	1982-01-13
		HK 6785 A	1985-02-01
		JP S5724757 A	1982-02-09
		KR 830006551 A	1983-09-28
		KR 840002475 B1	1984-12-31
		MY 8700025 A	1987-12-31
		NZ 197230 A	1983-12-16
		PH 16528 A	1983-11-10
		SG 78284 G	1985-04-26
		ZA 813361 B	1982-05-26
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