

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT7879985

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	W. R. GRACE & CO.-CONN.	03/22/2022
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	JPMORGAN CHASE BANK, N.A.	
<b>Street Address:</b>	10 S. DEARBORN, IL-0874	
<b>City:</b>	CHICAGO	
<b>State/Country:</b>	ILLINOIS	
<b>Postal Code:</b>	60603	
<b>PROPERTY NUMBERS Total: 63</b>		
<b>Property Type</b>	<b>Number</b>	
<b>Application Number:</b>	10564842	
<b>Patent Number:</b>	7193100	
<b>Patent Number:</b>	8206498	
<b>Patent Number:</b>	8354485	
<b>Patent Number:</b>	7960488	
<b>Patent Number:</b>	7897707	
<b>Patent Number:</b>	8088952	
<b>Patent Number:</b>	8501655	
<b>Patent Number:</b>	7928172	
<b>Patent Number:</b>	8088939	
<b>Patent Number:</b>	8524625	
<b>Patent Number:</b>	8486369	
<b>Patent Number:</b>	8685875	
<b>Patent Number:</b>	8163948	
<b>Application Number:</b>	13378390	
<b>Patent Number:</b>	9580328	
<b>Patent Number:</b>	9580329	
<b>Patent Number:</b>	9376324	
<b>Patent Number:</b>	8765660	
<b>Patent Number:</b>	8895465	

PATENT

<b>Property Type</b>	<b>Number</b>
Patent Number:	9090720
Patent Number:	9573121
Patent Number:	9662640
Patent Number:	10221264
Patent Number:	9738662
Patent Number:	9963349
Patent Number:	10626019
Patent Number:	11104749
Patent Number:	11439988
Patent Number:	11446623
Application Number:	16966348
Application Number:	16972863
Application Number:	16972894
Application Number:	17251879
Application Number:	17251891
Patent Number:	11498891
Application Number:	17285708
Application Number:	17426440
Application Number:	17442188
Application Number:	17593223
Application Number:	17594140
Application Number:	17594174
Application Number:	17600851
Application Number:	17608716
Application Number:	17608733
Application Number:	17609139
Application Number:	17625312
Application Number:	17636809
Application Number:	17761451
Application Number:	17761555
Application Number:	17773490
Application Number:	17915995
Application Number:	18011701
Application Number:	18015526
Application Number:	18015524
Application Number:	18016099
Application Number:	63320993
Application Number:	63320579

Property Type	Number
Application Number:	63320600
Application Number:	63344193
Application Number:	63344197
Application Number:	63356940
Application Number:	63395169

**CORRESPONDENCE DATA**

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<b>ATTORNEY DOCKET NUMBER:</b>	021198/00087 (RAD)
<b>NAME OF SUBMITTER:</b>	RAFFAELE A. DEMARCO
<b>SIGNATURE:</b>	/Raffaele A. DeMarco/
<b>DATE SIGNED:</b>	03/30/2023

**Total Attachments: 7**

- source=Grace - Patent Security Supplement No. 1 (2021 Credit Agreement) (executed) (4868-3568-3160.1)#page1.tif
- source=Grace - Patent Security Supplement No. 1 (2021 Credit Agreement) (executed) (4868-3568-3160.1)#page2.tif
- source=Grace - Patent Security Supplement No. 1 (2021 Credit Agreement) (executed) (4868-3568-3160.1)#page3.tif
- source=Grace - Patent Security Supplement No. 1 (2021 Credit Agreement) (executed) (4868-3568-3160.1)#page4.tif
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SUPPLEMENT NO. 1 TO PATENT SECURITY AGREEMENT

This SUPPLEMENT NO. 1 TO PATENT SECURITY AGREEMENT (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, this “Patent Security Agreement Supplement”) dated March 22, 2023, is made by W. R. Grace & Co.-Conn., a Connecticut corporation (the “Initial Grantor”) in favor of JPMorgan Chase Bank, N.A. (“JPMCB”), as collateral agent (the “Collateral Agent”) for the Secured Parties. Capitalized terms used herein and not otherwise defined herein shall have the meanings assigned to such terms in the Credit Agreement and the Security Agreement referred to therein.

WHEREAS, W. R. Grace Holdings LLC, a Delaware limited liability company (the “HoldCo Borrower,” and together with the Initial Grantor, the “Borrowers”), the Initial Grantor, W. R. Grace Midco Holdings LLC, a Delaware limited liability company, JPMCB, as Administrative Agent and Collateral Agent, each Lender from time to time party thereto and each other Person party thereto have entered into the Credit Agreement dated as of September 22, 2021 (the “Closing Date”) (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the “Credit Agreement”), pursuant to which the Lenders have severally agreed to make Loans and the L/C Issuers to issue Letters of Credit.

WHEREAS, in connection with the Credit Agreement, the Grantors have entered into the Security Agreement dated as of the Closing Date (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the “Security Agreement”) in order to induce the Lenders to make Loans, the L/C Issuers to issue Letters of Credit and certain other Secured Parties to make other financial accommodations to the Borrowers and the Restricted Subsidiaries.

WHEREAS, the Initial Grantor is a party to that certain Patent Security Agreement, dated as of September 22, 2021, made by the Initial Grantor in favor of the Collateral Agent, recorded at Reel/Frame 057594/0104.

WHEREAS, under the terms of the Security Agreement, the Initial Grantor has granted to the Collateral Agent, for the benefit of the Secured Parties, a security interest in, among other property, certain intellectual property of the Initial Grantor, and has agreed as a condition thereof to execute this Patent Security Agreement Supplement for recording with the United States Patent and Trademark Office.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Initial Grantor agrees as follows:

SECTION 1. Grant of Security. The Initial Grantor hereby grants to the Collateral Agent for the benefit of the Secured Parties a security interest in all of such Grantor’s right, title and interest in and to the following (the “Collateral”): the issued and pending Patents (as defined in the Security Agreement) in the United States Patent and Trademark Office set forth in Schedule A hereto.

SECTION 2. Security for Obligations. The grant of a security interest in the Collateral by the Initial Grantor under this Patent Security Agreement Supplement secures the payment of all Obligations of such Grantor now or hereafter existing under or in respect of the Loan Documents, whether direct or indirect, absolute or contingent, and whether for principal, reimbursement obligations, interest, premiums, penalties, fees, indemnifications, contract causes of action, costs, expenses or otherwise. Without limiting the generality of the foregoing, this Patent Security Agreement Supplement secures, as to the Initial Grantor, the payment of all amounts that constitute part of the secured Obligations and that would be owed by such Grantor to any Secured Party under the Loan Documents but for the fact that such secured Obligations are

unenforceable or not allowable due to the existence of a bankruptcy, reorganization or similar proceeding involving the Initial Grantor.

SECTION 3. Recordation. This Patent Security Agreement Supplement has been executed and delivered by the Initial Grantor for the purpose of recording the grant of security interest herein with the United States Patent and Trademark Office. The Initial Grantor authorizes and requests that the Commissioner for Patents record this Patent Security Agreement Supplement.

SECTION 4. Execution in Counterparts. This Patent Security Agreement Supplement may be executed in any number of counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement.

SECTION 5. Grants, Rights and Remedies. This Patent Security Agreement Supplement has been entered into in conjunction with the provisions of the Security Agreement. The Initial Grantor does hereby acknowledge and confirm that the grant of the security interest hereunder to, and the rights and remedies of, the Collateral Agent with respect to the Collateral are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated herein by reference as if fully set forth herein. In the event of any conflict between the terms of this Patent Security Agreement Supplement and the terms of the Security Agreement, the terms of the Security Agreement shall govern.

SECTION 6. Governing Law. This Patent Security Agreement Supplement shall be governed by, and construed in accordance with, the laws of the State of New York.

SECTION 7. Severability. In case any one or more of the provisions contained in this Patent Security Agreement Supplement should be held invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein and in the Security Agreement shall not in any way be affected or impaired thereby (it being understood that the invalidity of a particular provision in a particular jurisdiction shall not in and of itself affect the validity of such provision in any other jurisdiction). The parties hereto shall endeavor in good-faith negotiations to replace the invalid, illegal or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the invalid, illegal or unenforceable provisions.

[Signature Pages Follow]

IN WITNESS WHEREOF, the Initial Grantor has caused this Patent Security Agreement Supplement to be duly executed and delivered by its officer thereunto duly authorized as of the date first above written.

W. R. GRACE & CO.-CONN.,  
as Initial Grantor

DocuSigned by:

By:

*Armando Pastrana*

3A8D7B377F4542A  
Name: Armando Pastrana

Title: V.P., Chief IP Counsel & Assistant Secretary

*[Signature Page to Patent Security Supplement (2021 Credit Agreement)]*

JPMORGAN CHASE BANK, N.A.,  
as Collateral Agent

By:



Name: Rohan Bhatia

Title: Vice President

SCHEDULE A

United States Patents and Patent Applications

Appln No.	Appln Date	Patent No	Issue Date	Status	Owner Name
10/564842	9-Jul-04			Published	W. R. Grace & Co.-Conn.
10/751144	31-Dec-03	7193100	20-Mar-07	Granted	W. R. Grace & Co.-Conn.
12/009894	23-Jan-08	8206498	26-Jun-12	Granted	W. R. Grace & Co.-Conn.
12/201985	29-Aug-08	8354485	15-Jan-13	Granted	W. R. Grace & Co.-Conn.
12/299555	4-Nov-08	7960488	14-Jun-11	Granted	W. R. Grace & Co.-Conn.
12/374388	20-Oct-09	7897707	1-Mar-11	Granted	W. R. Grace & Co.-Conn.
12/374411	20-Jan-09	8088952	3-Jan-12	Granted	W. R. Grace & Co.-Conn.
12/442345	20-Mar-09	8501655	6-Aug-13	Granted	W. R. Grace & Co.-Conn.
12/519254	4-Dec-07	7928172	19-Apr-11	Granted	W. R. Grace & Co.-Conn.
12/676289	3-Mar-10	8088939	3-Jan-12	Granted	W. R. Grace & Co.-Conn.
12/684405	8-Jan-10	8524625	3-Sep-13	Granted	W. R. Grace & Co.-Conn.
12/689127	18-Jan-10	8486369	16-Jul-13	Granted	W. R. Grace & Co.-Conn.
12/907643	19-Oct-10	8685875	1-Apr-14	Granted	W. R. Grace & Co.-Conn.
12/919629	26-Aug-10	8163948	24-Apr-12	Granted	W. R. Grace & Co.-Conn.
13/378390	15-Dec-11			Published	W. R. Grace & Co.-Conn.
13/440781	5-Apr-12	9580328	28-Feb-17	Granted	W. R. Grace & Co.-Conn.
13/740839	14-Jan-13	9580329	28-Feb-17	Granted	W. R. Grace & Co.-Conn.
13/740916	14-Jan-13	9376324	28-Jun-16	Granted	W. R. Grace & Co.-Conn.
13/790903	8-Mar-13	8765660	1-Jul-14	Granted	W. R. Grace & Co.-Conn.
13/988886	22-May-13	8895465	25-Nov-14	Granted	W. R. Grace & Co.-Conn.
14/003023	4-Sep-13	9090720	28-Jul-15	Granted	W. R. Grace & Co.-Conn.
14/075661	8-Nov-13	9573121	21-Feb-17	Granted	W. R. Grace & Co.-Conn.
14/142444	27-Dec-13	9662640	30-May-17	Granted	W. R. Grace & Co.-Conn.
14/396915	24-Oct-14	10221264	5-Mar-19	Granted	W. R. Grace & Co.-Conn.
14/434132	8-Apr-15	9738662	22-Aug-17	Granted	W. R. Grace & Co.-Conn.
14/966674	11-Dec-15	9963349	8-May-18	Granted	W. R. Grace & Co.-Conn.
14/983901	30-Dec-15	10626019	21-Apr-20	Granted	W. R. Grace & Co.-Conn.



Appln No	Appln Date	Patent No	Issue Date	Status	Owner Name
16/332009	11-Mar-19	11104749	31-Aug-21	Granted	W. R. Grace & Co.-Conn.
16/462717	21-May-19	11439988	13-Sep-22	Granted	W. R. Grace & Co.-Conn.
16/959218	30-Jun-20	11446623	20-Sep-22	Granted	W. R. Grace & Co.-Conn.
16/966348	30-Jul-20			Published	W. R. Grace & Co.-Conn.
16/972863	7-Dec-20			Published	W. R. Grace & Co.-Conn.
16/972894	7-Dec-20			Published	W. R. Grace & Co.-Conn.
17/251879	14-Dec-20			Published	W. R. Grace & Co.-Conn.
17/251891	14-Dec-20			Published	W. R. Grace & Co.-Conn.
17/263279	26-Jan-21	11498891	15-Nov-22	Granted	W. R. Grace & Co.-Conn.
17/285708	15-Apr-21			Published	W. R. Grace & Co.-Conn.
17/426440	28-Jul-21			Published	W. R. Grace & Co.-Conn.
17/442188	23-Sep-21			Pending	W. R. Grace & Co.-Conn.
17/593223	13-Sep-21			Published	W. R. Grace & Co.-Conn.
17/594140	4-Oct-21			Published	W. R. Grace & Co.-Conn.
17/594174	5-Oct-21			Published	W. R. Grace & Co.-Conn.
17/600851	1-Oct-21			Published	W. R. Grace & Co.-Conn.
17/608,716	3-Nov-21			Published	W. R. Grace & Co.-Conn.
17/608733	3-Nov-21			Published	W. R. Grace & Co.-Conn.
17/609139	5-Nov-21			Published	W. R. Grace & Co.-Conn.
17/625312	6-Jan-22			Published	W. R. Grace & Co.-Conn.
17/636809	18-Feb-22			Published	W. R. Grace & Co.-Conn.
17/761451	17-Mar-22			Published	W. R. Grace & Co.-Conn.
17/761555	17-Mar-22			Published	W. R. Grace & Co.-Conn.
17/773,490	29-Apr-22			Pending	W. R. Grace & Co.-Conn.
17/915,995	24-Mar-21			Pending	W. R. Grace & Co.-Conn.
18/011701	20-Dec-22			Pending	W. R. Grace & Co.-Conn.
18/015,526	8-Jul-21			Pending	W. R. Grace & Co.-Conn.
18/015524	10-Jan-23			Pending	W. R. Grace & Co.-Conn.
18/016099	13-Jan-23			Pending	W. R. Grace & Co.-Conn.
63/320,993	17-Mar-22			Pending	W. R. Grace & Co.-Conn.

Appln No	Appln Date	Patent No	Issue Date	Status	Owner Name
63/320579	16-Mar-22			Pending	W. R. Grace & Co.-Conn.
63/320600	16-Mar-22			Pending	W. R. Grace & Co.-Conn.
63/344193	20-May-22			Pending	W. R. Grace & Co.-Conn.
63/344197	20-May-22			Pending	W. R. Grace & Co.-Conn.
63/356940	29-Jun-22			Pending	W. R. Grace & Co.-Conn.
63/395169	4-Aug-22			Pending	W. R. Grace & Co.-Conn.