PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 Assignment ID: PATI766267

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	Patent Security Agreement

CONVEYING PARTY DATA

Name	Execution Date
Trinseo Europe GmbH	01/17/2025

RECEIVING PARTY DATA

Company Name:	Deutsche Bank AG New York Branch, as collateral agent
Street Address:	1 Columbus Circle
City:	New York
State/Country:	NEW YORK
Postal Code:	10019

PROPERTY NUMBERS Total: 65

Property Type	Number
Patent Number:	6441071
Patent Number:	7312277
Patent Number:	8304483
Patent Number:	7632888
Patent Number:	8647427
Patent Number:	9447219
Patent Number:	9120925
Patent Number:	9522999
Patent Number:	9345356
Patent Number:	9908144
Patent Number:	9453125
Patent Number:	10066094
Patent Number:	9856391
Patent Number:	8691937
Patent Number:	10711129
Patent Number:	11208574
Patent Number:	10563043
Patent Number:	11091633
Patent Number:	11319389
Patent Number:	11970599

PATENT REEL: 069940 FRAME: 0035

508979641

Property Type	Number
Patent Number:	11584807
Patent Number:	11932757
Patent Number:	11370861
Patent Number:	11781007
Patent Number:	11649347
Patent Number:	11535748
Patent Number:	12173097
Patent Number:	12024600
Patent Number:	11739192
Application Number:	16331750
Application Number:	16331684
Application Number:	18592905
Application Number:	17417528
Application Number:	17297065
Application Number:	18102893
Application Number:	17297675
Application Number:	17297679
Application Number:	18691761
Application Number:	18742053
Application Number:	18748231
Application Number:	17610021
Application Number:	18872996
Application Number:	18036026
Application Number:	18724996
Application Number:	63562925
Application Number:	63564016
Application Number:	63564017
Application Number:	63546018
Application Number:	63674014
Application Number:	63563640
Application Number:	63664338
Application Number:	63564022
Application Number:	63562928
Application Number:	18269987
Application Number:	17771670
Application Number:	17917823
Application Number:	18028277
Application Number:	16965313

Property Type	Number
Application Number:	17914132
Application Number:	17687222
Application Number:	18556955
Application Number:	18383277
Application Number:	18526757
Application Number:	18589958
Application Number:	18632830

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 2136207848

Email: iprecordations@whitecase.com

Correspondent Name: Justine Lu/White & Case LLP

Address Line 1: 555 South Flower Street, Suite 2700 **Address Line 4:** Los Angeles, CALIFORNIA 90071

ATTORNEY DOCKET NUMBER:	4345198-0004-S216
NAME OF SUBMITTER:	Justine Lu
SIGNATURE:	/Justine Lu/
DATE SIGNED:	01/17/2025

Total Attachments: 11

source=Trinseo - Superpriority RCF - Patent Security Agreement (Executed)#page1.tiff source=Trinseo - Superpriority RCF - Patent Security Agreement (Executed)#page2.tiff source=Trinseo - Superpriority RCF - Patent Security Agreement (Executed)#page3.tiff source=Trinseo - Superpriority RCF - Patent Security Agreement (Executed)#page4.tiff source=Trinseo - Superpriority RCF - Patent Security Agreement (Executed)#page5.tiff source=Trinseo - Superpriority RCF - Patent Security Agreement (Executed)#page6.tiff source=Trinseo - Superpriority RCF - Patent Security Agreement (Executed)#page7.tiff source=Trinseo - Superpriority RCF - Patent Security Agreement (Executed)#page8.tiff source=Trinseo - Superpriority RCF - Patent Security Agreement (Executed)#page9.tiff source=Trinseo - Superpriority RCF - Patent Security Agreement (Executed)#page10.tiff source=Trinseo - Superpriority RCF - Patent Security Agreement (Executed)#page11.tiff

PATENT SECURITY AGREEMENT

PATENT SECURITY AGREEMENT, dated as of January [17], 2025, by TRINSEO EUROPE GMBH, a Swiss company with limited liability (the "<u>Grantor</u>"), in favor of DEUTSCHE BANK AG NEW YORK BRANCH, in its capacity as collateral agent pursuant to the Credit Agreement (in such capacity, the "<u>Collateral Agent</u>").

WITNESSETH:

WHEREAS, the Grantors are party to a Pledge and Security Agreement dated as of January [17], 2025 (as amended, amended and restated, supplemented or otherwise modified from time to time, the "Security Agreement") in favor of the Collateral Agent pursuant to which the Grantors are required to execute and deliver this Patent Security Agreement;

NOW, THEREFORE, in consideration of the premises and to induce the Collateral Agent, for the benefit of the Secured Parties, to enter into the Credit Agreement, the Grantors hereby agree with the Collateral Agent as follows:

SECTION 1. <u>Defined Terms</u>. Unless otherwise defined herein, terms defined in the Security Agreement and used herein have the meaning given to them in the Security Agreement.

SECTION 2. Grant of Security Interest in Patent Collateral. Each Grantor hereby pledges and grants to the Collateral Agent for the benefit of the Secured Parties a lien on and security interest in and to all of its right, title and interest in, to and under all the Collateral (excluding any Excluded Assets) of such Grantor consisting of issued or pending Patents owned by such Grantor listed on Schedule I attached hereto.

SECTION 3. The Security Agreement. The security interest granted pursuant to this Patent Security Agreement is granted in conjunction with the security interest granted to the Collateral Agent pursuant to the Security Agreement and Grantors hereby acknowledge and affirm that the rights and remedies of the Collateral Agent with respect to the security interest in the Patents made and granted hereby are more fully set forth in the Security Agreement. In the event that any provision of this Patent Security Agreement is deemed to conflict with the Security Agreement, the provisions of the Security Agreement shall control unless the Collateral Agent shall otherwise determine.

SECTION 4. <u>Termination</u>. Upon the termination or release of the Security Agreement in accordance with <u>Error! Reference source not found</u>. thereof, the Collateral Agent shall, at the expense of such Grantor, execute, acknowledge, and deliver to the Grantors an instrument in writing in recordable form releasing the lien on and security interest in the Patents under this Patent Security Agreement.

SECTION 5. <u>Counterparts</u>. This Patent Security Agreement may be executed in any number of counterparts, all of which shall constitute one and the same instrument, and any party hereto may execute this Patent Security Agreement by signing and delivering one or more counterparts.

SECTION 6. <u>Specific Limitation for Swiss Guarantors</u>. The specific limitation for Swiss guarantors contained in Section 11.09 of the Credit Agreement (as defined in the Security Agreement as defined herein) shall apply *mutatis mutandis* to the obligations of Trinseo Europe GmbH under this Patent Security Agreement.

[Signature pages follow.]

IN WITNESS WHEREOF, the parties hereto have duly executed this Patent Security Agreement as of the date first written above.

TRINSEO EUROPE GMBH

Name: Arthas (Bing) Yang

Managing Director

[Signature Page to Patent Security Agreement]

DEUTSCHE BANK AG NEW YORK BRANCH, as Collateral Agent

By:

Name: Philip Tancorra

Title: Director

Bv: Suzan Onal

Name: Suzan Onal Title: Director

SCHEDULE I to PATENT SECURITY AGREEMENT PATENT REGISTRATIONS AND PATENT APPLICATIONS

[See Attached]

GRANTED PATENTS

	GRANIED PATEINIS		
Country Name	Application Number	Patent Number	Title
United States of America 09/634,674	09/634,674	6,441,071	POLYCARBONATE RESIN COMPOSITIONS COMPRISING CYANACRYI IC ACID ESTER
			STABILIZER COMPOUNDS
United States of America 10/563,784	10/563,784	7312277	MASS POLYMERIZED RUBBER-MODIFIED
			MONOVINYLIDENE AROMATIC COPOLYMER COMPOSITION
United States of America 12/557,768	12/557,768	8304483	THERMOPLASTIC FIBER CONCENTRATE
		200	METHODS AND ARTICLES
United States of America 11/893,449	11/893,449	7,632,888	THERMOPLASTIC FIBER CONCENTRATE
United States of America	12/934,485	8647427	POLYVINYL ESTER-BASED LATEX COATING
			COMPOSITIONS
United States of America 13/500,135	13/500,135	9447219	IMPACT MODIFIED MONOVINYLIDENE AROMATIC POLYMER HAVING LOW RUBBER
			CROSSLINKING
United States of America 13/576,839	13/576,839	9,120,925	CARBONATE BLEND COMPOSITION HAVING
			ENVIRONMENTAL STRESS CRACKING
United States of America 14/343,502	14/343,502	9,522,999	MECHANICAL PROPERTIES AND PROCESS
			FOR PREPARING SAID POLYMER LATEX
United States of America 14/234,694	14/234,694	9345356	FLOOR MAT
United States of America 14/402,379	14/402,379	9,908,144	A Coated Substrate and System and Method for
			Making the Same
United States of America 14/769,500	14/769,500	9453125	HIPS COMPOSITIONS WITH IMPROVED ESCR
United States of America 15/241,142	15/241,142	10,066,094	HIGH IMPACT POLYSTYRENE HAVING HIGH
			MODULUS AND RESISTANCE TO FINVIRONMENTAL STRESS CRACKING
United States of America	14/782,659	9856391	Rotor Stator Starch Dispersion With Enzyme
			Addition
United States of America 13/518,154	13/518,154	8,691,937	METHOD FOR THE PREPARATION OF LOW ODOUR COPOLYMER LATEXES
United States of America 15/119,006	15/119,006	10,711,129 B2	Method for preparing a long glass fiber reinforced composition and articles thereof

RECOVERY OF (METH)ACRYLIC RESIN BY DEPOLYMERIZATION AND HYDROLYSIS	11,739,192	17/049735	United States of America 17/049735
RECYCLING METHOD FOR ELASTOMER TOUGHENED THERMOPLASTIC POLYMERS	12,024,600	18/269,100	United States of America 18/269,100
IONOMERS AND/OR CHAIN EXTENDED/BRANCHED COPOLYMERS OF IMPACT MODIFIED VINYLIDENE AROMATIC MONOMER AND UNSATURATED COMPOUNDS	12173097	18/691,751	United States of America 18/691,751
MATTE POLYCARBONATE COMPOSITIONS, ARTICLES AND METHOD TO MAKE THEM	11,535,748	17/761,897	United States of America 17/761,897
IMPACT MODIFIED COPOLYMERS OF	11,649,347	17/766,332	United States of America 17/766,332
STABILIZED COMPOSITIONS OF POLYCARBONATES AND VINYLIDENE SUBSTITUTED AROMATIC COMPOUNDS	11,781,007	17/637,634	United States of America 17/637,634
GROUPS			
CHAIN EXTENDED OR BRANCHED COPOLYMERS OF VINYLIDENE AROMATIC	11,370,861	17/297,063	United States of America 17/297,063
FORMALDEHYDE FREE SAFE TO USE BINDER FORMULATION FOR WOVEN, NONWOVEN AND GRANULAR MATERIALS	11932757	17/277957	United States of America 17/277957
STYRENIC POLYMERS HAVING REDUCED TRIMER CONTENT	11,584,807	17/616,849	United States of America 17/616,849
HOLLOW PLASTIC SPHERES WITH CONTROLLED PARTICLE SIZES	11,970,599 B2	18/280,353	United States of America 18/280,353
VINYLIDENE SUBSTITUTED AROMATIC MONOMER AND CYCLIC (MTH)ACRYLATE ESTER POLYMERS	11,319,389	17/282,392	United States of America 17/282,392
COMPOSITIONS USEFUL IN PREPARING RECYCLABLE POLYCARBONATE SHEETING HAVING A MATTE APPEARANCE	11091633	16/635,210	United States of America 16/635,210
FLAME RETARDANT POLYCARBONATES HAVING HIGH TOTAL LUMINOUS TRANSMITTANCE	10,563,043	15/458,555	United States of America 15/458,555
MOLDED STRUCTURES OF POLYCARBONATE BASED SUBSTRATES OVER MOLDED WITH SILICONE RUBBERS	11208574	16/078,271	United States of America 16/078,271

		PENDING PATENT APPLICATIONS	PLICATIONS	
Docket Number	Country	Application Number	Application Number Publication Number	Title
1232	United States of America	16/331,750	20190232621	MULTI-LAYER COMPOSITE ARTICLE
				INCLUDING POLYURETHANE LAYER AND PC/ABS LAYER
1235	United States of America	16/331,684	20190232620	MULTI-LAYER COMPOSITE ARTICLE
				PC/ABS LAYER AND METHODS THEREOF
1254	United States of America	18/592905	20240199872	FORMALDEHYDE FREE SAFE TO USE
				BINDER FORMULATION FOR WOVEN, NON-WOVEN AND GRANULAR
				MATERIALS
1255	United States of America	17/417,528	US-2022-0041854-a1	EXTREMELY LOW ODOR STYRENIC
700	Light L Otaton of America	17/007 005	000000000000000000000000000000000000000	POLYMER COMPOSITION
T C	סווונטט סומנטט סו אוווסווטט	17,000	FOFF0000 177	VINYLIDENE AROMATIC MONOMER AND
				GROUPS
1262	United States of America	18/102,893	US 2023/0174779 A1	POLYCARBONATE COMPOSITION WHICH
				WHEN MOLDED
1265	United States of America	17/297,675	US-2022-0010088-A1	FOAMS AND METHODS OF FORMING
				EXTENDED/BRANCHED COPOLYMERS
				OF VINYLIDENE SUBSTITUTED
1060	Inited States of America	17/207 670		AROMATIC MONOMERS
1200	Offiled States of Affierica	17/297,079	03-2022-0010007-71	FOAMS OF IONOMERS OF COPOLYMERS
				OF OF
				UNSATURATED COMPOUNDS WITH ACID
1072	United States of America	18/601 761	118-2024/028630341	MONOVINY DENE ABOMATIO
1273	Office States of Afficia	10/091,/01		MULTILAYER SHEET CONTAINING
				IMPACT MODIFIERS
1278	United States of America	18/742,053	US-2024/0327599 A1	RECYCLING METHOD FOR ELASTOMER TOUGHENED THERMOPLASTIC
				PULYMERS

AS102	1321	1319	1318	1314	1313	ā	1208	1307	1306		1305	1295	1293	1292	1290	1289
102	<u> </u>	9	σ.	4	ω	Č	Ď)7)6		5)5	33)2	0	99
United States of America	United States of America	United States of America	United States of America	United States of America	United States of America	On the state of th	Inited States of America	United States of America	United States of America		United States of America	United States of America	United States of America	United States of America	United States of America	United States of America
18/269,987	63/562,928	63/564,022	63/664,338	63/563,640	63/674,014	0,0	69/5/6 018	63/564,017	63/564,016		63/562,925	18/724996	18/036026	18/872,996	17/610021	18/748,231
20240084124													2024/0001594		20220242014	US20250002662
METHODS FOR PRODUCING HIGHLY THERMOFORMABLE ACRYLIC SOLID SURFACE	FIRE RETARDANT POLYCARBONATE LONG GLASS FIBER COMPOSITIONS	METHODS OF MODIFYING POLYCARBONATES WITH SILOXANES	FOAMS OF IONICALLY CROSSLINKED STYRENE-ACRYLIC ACID COPOLYMERS CONTAINING GRAPHITE	SOLUBLE IN ORGANIC SOLVENTS	STABILIZED COMPOSITIONS BASED ON POLYCARBONATES USING A BUFFER	AND/OR CARBOXYL CONTAINING COMPOUNDS	RETARDANCY OF POLYCARBONATES	METHODS OF MODIFYING FLAME	POLYCARBONATE COMPOSITIONS CONTAINING MONOMER UNITS OF BIPHENOLS AND ACETYLENE BRIDGED BISPHENOLS	PROOF LAYER IN BATTERY PACK	FIREPROOF COMPOSITE AS FIRE ACTIVATING HEAT INSULATING LAYER	Process for Recycling Contaminated Polymers	METHOD AND GASGET FOR PRODUCING A POLYMETHYL METHACRYLATE PLATE	NOVEL ANODE ACTIVE MATERIAL SLURRY FOR COATING AN ANODE CURRENT COLLECTOR FOR A SECONDARY LI-ION BATTERY	METHOD AND GASKET FOR PRODUCING A POLYMETHYL METHACRYLATE PLATE	IONICALLY CROSSLINKED (METH)ACRYLIC (CO)POLYMERS

20220355584 ULTRA LOW HEAT BUILDUP CAPSTOCK 20210371640 PMMA DIFFUSE ET COLORT 20210380796 INJECTION MOLDED LIGHT DIFFUSING COLOURED PMMA 20190249031 OPTICAL REFLECTORS, REFLECTION FILMS AND SHEETS PIGH Tg OPTICAL GRADE ACRYLIC RESINS		United States of America	PMMA-125 PMMA-131 PMMA-131 PMMA-132 PMMA-139 PMMA-140 PMMA-145 PMMA-145
		United States of America	PMMA-125 PMMA-131 PMMA-131 PMMA-132 PMMA-139 PMMA-140 PMMA-145
COULT PMIN		United States of America	PMMA-125 PMMA-131 PMMA-132 PMMA-139 PMMA-140
PM ULI	ωων	United States of America	PMMA-125 PMMA-131 PMMA-131 PMMA-132 PMMA-139
UL1	ω ΝΤ	United States of America	PMMA-125 PMMA-129 PMMA-131
IN HUMID ENVIRONMENTS	N	United States of America United States of America United States of America United States of America	PMMA-125 PMMA-129 PMMA-131
20220162440 HIGH IMPACT AND HIGH GLOSS		United States of America United States of America United States of America	PMMA-125 PMMA-129
20200290324 MULTILAYER POLYMERIC STRUCTURES		United States of America United States of America	PMMA-125
20160046102 MULTILAYER POLYMER STRUCTURES		United States of America	
2007-0149659 FLAME-RETARDANT METHACRYLIC COMPOSITION	11/582001		PMMA-110
20220356281 HYDROPHOBIC HIGH HEAT OPTICAL ACRYLIC COPOLYMERS	17/600,981 20	United States of America	PMMA-109
COPOLYMERS			
20220177622 IMPACT RESISTANT HYDROPHORIC	17/600 945	United States of America	PMMA-108
20210355294 HI GLOSS ARTICLE WITH IMPROVED ABRASION RESISTANCE	16/960408 20	United States of America	PMMA-106
		Charles Charles	
20240399637 ARTICLES OF MANUFACTURE	18/691 206 20	United States of America	AS109
THERMOFORMABLE ACRYLIC SOLID			
US-2024-0360305-A1 ARTICLES OF MANUFACTURE	18/687,899 US	United States of America	AS108
AND METHODS FOR PRODUCING SAME			
20240352246 NON-HALOGENATED, SELF-	18/687,348	United States of America	AS107
CO			
202010102057 METHOD FOR PRODUCING ACRYLIC SOLID SURFACE WITH IMPROVED	17060341 20	United States of America	AS103

PROTECTION LAYERS				
SIGNATURE LIGHTING AND SURFACE				
RESINS FOR ALITOMOTIVE LED	20240343900	18/632,830	United States of America	PMMA-239
CHEMICALLY RESISTANT PMMA ALLOYS FOR AUTOMOTIVE LED LENSES AND MEDICAL DEVICES	20240294744	18/589,958	United States of America	PMMA-238
ACRYLIC POLYMERS FOR USE IN SHEET EXTRUSION AND MULTI INJECTION MOLDING PROCESSING		10/320,/3/	Onlied States of America	TMINIX-2034
CONTAINING FUNCTIONAL COMONOMER		10/303,277	Office Office Of Afficia	
SELF-HEALING ACRYLIC POLYMER BY DISULFIDE OR DITHIOESTER METATHESIS		18/556,955	United States of America	PMMA-231
ACRYLIC COPOLYMER RESINS	9212 A1	17/687,222	United States of America	PMMA-212
COMPOSITION COMPRISING SCATTERING PARTICLES	20230110105	17/914,132	United States of America	PMMA-202
A (METH)ACRYLIC POLYMER COMPOSITION COMPRISING PARTICLES, ITS METHOD OF PREPARATION AND ITS USE AS MASTERBATCH	20210115241	16/965313	United States of America	PMMA-201
FLOW RATE AND LOW WATER HAZE AS CAP LAYER FOR OUTDOOR AND CONSUMER APPLICATIONS				
MULTILAYER STRUCTURE WITH CAPSTOCK RESIN THAT PROVIDE HIGH IMPACT RESISTANCE WITH HIGH MELT	20240002651	18/028,277	United States of America	PMMA-199
COMPOSITION COMPRISING A COPOLYMER COMPRISING MONOMERS OF METHYL METHACRYLATE AND METHACRYLIC ACID, ITS USE AND MOULDED OBJECT	20230159681	1//91/,823	United States of America	PMMA-196
MULTILAYER PULTRUDED STRUCTURE HAVING A CHEMICAL RESISTANT AND WEATHERABLE TOP LAYER		17/771,670	United States of America	PMMA-195L

RECORDED: 01/17/2025