



Fibers for Life.



# Product Overview

FIRST CLASS EXCIPIENTS & COATINGS

## BINDERS

VIVAPUR® EMCOCEL® Microcrystalline Cellulose <sup>1</sup> , Ph. Eur., NF, JP, E 460(i), FCC					
Grade	Grade	Average Particle Size by Laser Diffraction [µm]	Bulk Density [g/mL]		Main Application
			VIVAPUR®	EMCOCEL®	
VIVAPUR® 105		15	max. 0.26		Very fine, highly compactable grade, with pleasant mouth feel.
VIVAPUR® 101	EMCOCEL® 50 M	65	0.26 - 0.31	0.25 - 0.37	Fine standard MCC grade, for wet granulation, roller compaction and spherulization. Very high compactability.
VIVAPUR® 103		65	0.26 - 0.34		Same quality as grade 101/50 M, but very low moisture content (<1.5 %) for processing water-sensitive actives.
VIVAPUR® 301		65	0.35 - 0.46		Same quality as grade 101, but increased bulk density and improved flow properties.
VIVAPUR® 102	EMCOCEL® 90 M	130	0.28 - 0.33	0.25 - 0.37	Medium size standard MCC. Combines good flow and high compactability.
VIVAPUR® 112	EMCOCEL® XLM 90	130	0.30 - 0.36	0.25 - 0.37	Same quality to grades 102/90 M, but very low moisture content (<1.5 %) for processing water-sensitive actives.
VIVAPUR® 302	EMCOCEL® HD 90	130	0.35 - 0.50	0.38 - 0.50	Same quality to grade 102/90 M, but increased bulk density and improved flow properties.
VIVAPUR® 102 SCG	EMCOCEL® 90 M COARSE	170 / 175	0.28 - 0.34	0.25 - 0.37	Coarse, DC-grade MCC
Optimal Flow and Compaction for DC					
VIVAPUR® 12		180	0.30 - 0.36		Coarse grade MCC, combines good compactability and with outstanding flow.
VIVAPUR® 14		170	0.32 - 0.40		Same quality compared to grade 12, but very low moisture content (<1.5 %) for processing water-sensitive actives.
VIVAPUR® 200	EMCOCEL® LP 200	220 / 250	0.31 - 0.37	0.20 - 0.37	Large size MCC grade with excellent flow properties for a variety of direct compression formulations.
VIVAPUR® 200 XLM		250	0.33 - 0.40		Same quality to grades 200, but very low moisture content (<1.5 %) for processing water-sensitive actives.
VIVAPHARM® Povidones Povidone E 1201 and Copovidone E 1208					
Grade	Compendial Name			Main Application	
VIVAPHARM® PVP K25	Povidone, Ph. Eur., USP, JP			Wet granulation binder	
VIVAPHARM® PVP K30 VIVAPHARM® PVP K90	Povidone, Ph. Eur., USP, JP, FCC			Wet granulation binder	
VIVAPHARM® PVP/VA 64	Copolyvidone, Ph. Eur., NF, FCC, Copolyvidone, JPE			Binder for wet and dry granulation, direct compression and hot-melt extrusion.	
EMDEX® Dextrates, NF					
EMDEX® combines outstanding, dust-free powder flow with strong tabletability and high water solubility. It is ideally suited as alternative to spray-dried lactose. EMDEX® is also available GMO-free.					

## LUBRICANTS

PRUV® Sodium Stearyl Fumarate <sup>1</sup> , Ph. Eur., NF, JPE, FCC			
Specification	PRUV®	PRUV® C6	
Specific Surface Area	1.2 ~ 2.0 m <sup>2</sup> /g*	0.3 - 1.0 m <sup>2</sup> /g*	
pH	about 8.5 (10 % aqueous solution at 90 °C)	(10 % aqueous solution at 90 °C)	
Saponification Value	142.2 – 146.0	142.2 – 146.0	
Moisture	<5.0 %	<5.0 %	
Soubility	0.5 mg/100 mL at 25 °C 10 g/100 mL at 80 °C 20 g/100 mL at 90 °C	0.5 mg/100 mL at 25 °C 10 g/100 mL at 80 °C 20 g/100 mL at 90 °C	
Melting Point	224 – 245 °C (dec.)	224 – 245 °C (dec.)	
* RI-CEP 2006 - 313			
* by Blaine method			
LUBRITAB® Hydrogenated Vegetable Oil, NF, BP, Hydrogenated Oil, JP			
LUBRITAB® is made from hydrogenated cottonseed oil. It is used as a lubricant as well as a binder and controlled release matrix.			

## DISINTEGRANTS

EXPLOTAB® VIVASTAR® Sodium Starch Glycolate, Ph. Eur., NF, JP, ChP <sup>1</sup> , GMO-free					
Sodium starch glycolate based on potato starch enables powerful disintegration via its swelling mechanism.					
MeOH-based	EtOH-based	pH Value	Compendial Type	Main Application	
VIVASTAR® P		5.5 - 7.5	A	Superdisintegrant with a rapid and high degree of swelling for tablet and capsule formulations. Especially for poorly water-soluble actives and tablet matrices with higher pH values.	
	EXPLOTAB®	5.5 - 7.5	A		
VIVASTAR® PSF		5.5 - 7.5	A	Special grade with very low methanol content. Especially suited for alcohol- and moisture-sensitive APIs.	
	EXPLOTAB® CLV	5.5 - 7.5	A	Special grade with increased number of crosslinkings. Especially suited for wet granulation applications.	
	EXPLOTAB® PCF	5.5 - 7.5	A	Special grade with max. 0.7 % NaCl recommended for APIs which require a very low ion content.	
	EXPLOTAB® Low pH	3.0 - 5.0	B	Special grade with low pH value. Complies with Type B of Ph. Eur., NF, JP.	
VIVASTAR® P 1000 SF		5.5 - 7.5	C	Low-/medium-/high-viscosity grade superdisintegrants, forming translucent gels in water. Compliant with Type C of the Ph. Eur. Compliant with Type A of JP and NF.	
VIVASTAR® P 3500		5.5 - 7.5	C		
VIVASTAR® P 5000		5.5 - 7.5	C		
*only available for VIVASTAR®					
EMCOSOY® Soy Polysaccharides					
An all natural disintegrant, which does not contain starch or sugar. Being a dietary fiber, it has excellent application in nutritional products.					
VIVASOL® Croscarmellose Sodium, Ph. Eur., NF, JP					
Grade	Raw Material	GMO-free	Loss on Drying	Solvent Content	
VIVASOL®	cotton floc		max. 10 %	max. 1 % MeOH	A cellulose-based superdisintegrant, providing excellent results in tablet disintegration. Used at a level of 1 - 4 % only, it is one of the most efficient superdisintegrants in the pharmaceutical technology. VIVASOL® can be used in all tabletting processes. Especially good for medium soluble actives.
VIVASOL® GF	wood pulp	✓	max. 10 %	max. 0.5 % EtOH	
VIVASOL® GF LM	wood pulp	✓	max. 6 %	max. 0.1 % EtOH	Grade with less than 6 % moisture for food applications (E 468).
VIVAPHARM® Crospovidone Crospovidone, Ph. Eur., NF, JP, E 1202, FCC					
Unsurpassed disintegration performance and versatility.					
Grade	Chemical Name		Average Particle Size by Laser Diffraction [µm]		Compendial Type
VIVAPHARM® PVPP XL	Polyvinylpyrrolidone, crosslinked		125		A
VIVAPHARM® PVPP XL-10			30		B

Data is subject to change without notice. We cannot assume any responsibility for risks or liabilities, which may result from the use of this information. Visit [jrspharma.com](http://jrspharma.com) for the latest technical and regulatory information.

## HIGH FUNCTIONALITY EXCIPIENTS

PROSOLV® 730 Directly Compressible Carrier for Lipophilic Ingredients						
PROSOLV® 730 is a co-processed composite enabling adsorption and direct compression of oils, conversion of soft-gel capsules into tablets, dissolution enhancement and modified release.						
Grade	Ingredients	Average Particle Size by Laser Diffraction [µm]			Main Application	
PROSOLV® 730	Microcrystalline Cellulose, Silica, Copovidone	50			Direct compression of oily APIs and APIs dissolved in oil.	
PROSOLV® EASYtab All-in-one Composite						
A homogeneous high-functionality excipient composite, comprised of binder/filler, glidant, superdisintegrant and lubricant. PROSOLV® EASYtab imparts a perfect balance of compaction, flow, disintegration, lubrication, content uniformity and reduced sticking. PROSOLV® EASYtab for rapid formulation development, convenient tablet manufacture, significantly higher tableting speed and output per hour.						
Grade	Binder Micro-crystalline Cellulose	Glidant Colloidal Silicon Dioxide	Disintegrant Cros-carmellose Sodium	Lubricant Sodium Stearyl Fumarate	Magnesium Stearate	Main Application
PROSOLV® EASYtab SP	✓	✓	✓	✓		High-speed tableting, superior weight and content uniformity, no overmixing, higher yield.
PROSOLV® EASYtab SP LM	✓	✓	✓	✓		Equal quality to grade EASYtab SP, but lower moisture content (< 3 %).
PROSOLV® EASYtab NUTRA CM	✓	✓	✓		✓	EASYtab NUTRA exhibits the same advantages as EASYtab SP. Simplifies tableting, no need for further excipients.
PROSOLV® EASYtab NUTRA GM	✓	✓	✓		✓	
PROSOLV® SMCC Silicified Microcrystalline Cellulose, NF, JPE (Microcrystalline Cellulose, Ph. Eur., NF, JP, E 460(I) and Silica, Colloidal Anhydrous, Ph. Eur., E 551 <sup>1</sup> , JP)						
A portfolio of high functionality excipients that imparts superior flow, compaction and dispersion to a formulation. When used in direct compression, PROSOLV® SMCC can replace granulations, while significantly reducing excipient numbers and levels. PROSOLV® SMCC formulations produce distinctive, uniform, cost effective tablets.						
Grade	Average Particle Size by Laser Diffraction [µm]	Bulk Density [g/mL]	Main Application			
PROSOLV® SMCC 50 LD	50	0.20 - 0.30	SMCC grade with highest binding power.			
PROSOLV® SMCC 50	65	0.25 - 0.37	Designed for optimal compaction and decent flow.			
PROSOLV® SMCC 90*	125	0.25 - 0.37	For formulas where a balance of flow and compaction is required.			
PROSOLV® SMCC HD 90*	125	0.38 - 0.50	Optimized for flow, bulk density, and shortest disintegration times.			
* NF = Colloidal Silicon Dioxide; JP = Light Anhydrous Silicic Acid			*Low moisture grade available on request			
PROSOLV® ODT						
PROSOLV® ODT 62 is a high functionality excipient for the production of oro-dispersible tablets. It enables fast and easy formulation work as well as efficient manufacturing of high quality ODTs.						
Grade	Ingredients	Average Particle Size by Laser Diffraction [µm]	Bulk Density [g/mL]	Main Application		
PROSOLV® ODT 62	Microcrystalline Cellulose Colloidal Silicon Dioxide	50	0.20 - 0.30	PROSOLV® ODT 62 is a simple-to-use co-processed composite derived from JRS PHARMA's patented PROSOLV® Technology. Its primary application is for the development and manufacture of orally disintegrating tablets allowing the discrete and convenient administering of medicines without water for high patient compliance.		
	Mannitol Fructose Crospovidone					

## FUNCTIONAL FILLERS

ARBOCEL® Powdered Cellulose, Ph. Eur., NF, JP, E 460 (II), FCC			
Powdered cellulose is used as an economic and inert diluent in tableting and capsule filling. Especially in wet granulation it works synergistically with other economic excipients such as starch or lactose. Combined with these, ARBOCEL® improves tablet hardness and disintegration time.			
Grade	Average Particle Size by Laser Diffraction [µm]	Bulk Density [g/mL]	Main Application
ARBOCEL® M80	55	0.20 - 0.24	Fine, fibrous grade of powdered cellulose, suitable for wet granulation.
ARBOCEL® P290	75	0.27 - 0.33	Fine grade with improved flow for wet granulation and direct compression.
ARBOCEL® A300	320	0.31 - 0.41	Grade with excellent flow for direct compression and for capsule fillings.

COMPACTROL® Calcium Sulfate Dihydrate, Ph. Eur., NF, E 516, FCC			
COMPACTROL® is a specially processed Calcium Sulfate Dihydrate for use as a filler in tablets made by direct compression or wet granulation.			
Grade	Bulk density [g/mL]	Average Particle Size by Laser Diffraction, [µm]	
COMPACTROL®	max 1.1	120	

EMCOMPRESS® Calcium Phosphates				
Grade	Compendial Name	Food Additives Monographs	Average Particle Size by Laser Diffraction [µm]	Main Application
EMCOMPRESS® PREMIUM <sup>5</sup>	Dibasic Calcium Phosphate Dihydrate, USP	FCC, E 341 (ii)	220	Direct Compression
EMCOMPRESS®	Calcium Hydrogen Phosphate Dihydrate, Ph. Eur. Dibasic Calcium Phosphate Hydrate, JP		190	Direct Compression
EMCOMPRESS® PREMIUM POWDER <sup>5</sup>	Calcium Phosphate Dibasic, FCC Dicalcium Phosphate, E 341 (ii)	FCC, E 341 (ii)	< 50	Wet Granulation
EMCOMPRESS® ANHYDROUS	Calcium Hydrogen Phosphate, Ph. Eur. Anhydrous Dibasic Calcium Phosphate, USP, JP	FCC, E 341 (ii)	200	Direct Compression
EMCOMPRESS® ANHYDROUS COARSE POWDER 60 <sup>5</sup>	Dibasic Calcium Phosphate Anhydrous, FCC Anhydrous Calcium Phosphate, Dibasic, E 341 (ii)	FCC, E 341 (ii)	60	Direct Compression
EMCOMPRESS® ANHYDROUS POWDER <sup>5</sup>		FCC, E 341 (ii)	< 50	Wet Granulation
EMCOMPRESS® TCP DC <sup>5</sup>	Calcium Phosphate, Ph. Eur. Tribasic Calcium Phosphate, NF, JPE, E 341 (ii), FCC	FCC, E 341 (ii)	300	Direct Compression
EMCOMPRESS® TCP POWDER <sup>5</sup>		FCC, E 341 (ii)	< 50	Wet Granulation & Anticaking Agent

<sup>5</sup>Characterised by extra tight specifications on heavy metals and aluminium, thus complying with European food regulations.

Order your Samples and ask for JRS Tablet Formulation Guide now.



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www.jrspharma.com

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## COATING – Ready-to-Use

VIVACOAT® Ready-to-Use Coating System				
Grade	Main Application		Pharma	Nutra
VIVACOAT® C	Customer Formulation	YOUR formulation in OUR production	✓	✓
VIVACOAT® A	High Adhesion	The global HPMC based VIVACOAT® best seller	✓	✓
VIVACOAT® M neo	Moisture Barrier	The PVA based global standard for moisture protection	✓	✓
VIVACOAT® free	TiO2 -free	The best TiO2-free coating in the market. High opacity, brilliant whiteness, brilliant colors	✓	✓
VIVACOAT® seal	Multifunctional Coating	Shellac based Isolation, taste masking, moisture protection, odor masking, sealant against acidic fluids		✓
VIVACOAT® N	Natural Components, TiO2 -free	The more natural VIVACOAT® A	✓	✓
VIVACOAT® ocean pure	Natural Coating	Alginate based, sustainable, label friendly		✓
VIVACOAT® X	eXtra Elegance	eXtraordinary appearance	✓	✓
VIVACOAT® protect Ready-to-Use High Functional Coating System				
Grade	Main Application		Pharma	Nutra
VIVACOAT® protect E	Enteric	Reliable protection for your API	✓	
VIVACOAT® protect W	Water Vapor Protection	The advanced moisture protection	✓	
VIVACOAT® protect T	Taste Protection	Excellent taste masking	✓	
VIVACOAT® protect U	UV-Protection	Clear top-coat Ultra-thin film, Ultra-strong protection	✓	

## COATING – Polymers

VIVAPHARM® HPMC Hypromellose, Ph. Eur., USP, JP, E 464, FCC			
Standard polymer for film coatings. Binder for wet granulation.			
Grade	Substitution Type	Viscosity (2 %)[mPas]	Main Application
VIVAPHARM® HPMC E 3		3	For high solid content
VIVAPHARM® HPMC E 5	USP 2910 Methoxy-groups: 28 - 30 %	5	Typical grade for an excellent coat: Binder for wet granulation
VIVAPHARM® HPMC E 6		6	Typical grade for an excellent coat: Binder for wet granulation
VIVAPHARM® HPMC E 15	Hydroxypropoxy-groups: 7 - 12 %	15	Binder for wet granulation; Grade for an excellent coat
VIVAPHARM® HPMC E 50		50	As a suspension stabilizer
VIVAPHARM® PVA Poly (vinyl alcohol), Ph. Eur. / Polyvinyl Alcohol, NF / Partially Hydrolyzed Polyvinyl Alcohol, JPE, E 1203, FCC, GRAS			
Grade	Degree of Hydrolysis (mol - %)	Viscosity (4 %)[mPas]	Main Application
VIVAPHARM® PVA	85 - 89	4,6 - 6,0	Tablet coating, wet granulation

Coating Hotline: Phone: +49 7967 152-444 · [filmcoating@jrspharma.de](mailto:filmcoating@jrspharma.de)

## CARRIERS

VIVAPUR® MCC SPHERES Microcrystalline Cellulose, Ph. Eur., NF, JP, E 460 (i)			
Chemical inert carrier for APIs			
Grade	[ mesh]	Size [µm]	Main Application
VIVAPUR® MCC SPHERES 100	70 - 140	100 - 200	- Water-insoluble carrier for aqueous drug layering - Small particle sizes available - High robustness
VIVAPUR® MCC SPHERES 200	45 - 70	200 - 355	
VIVAPUR® MCC SPHERES 350	35 - 45	355 - 500	
VIVAPUR® MCC SPHERES 500	25 - 35	500 - 710	
VIVAPUR® MCC SPHERES 700	18 - 25	710 - 1000	
VIVAPUR® MCC SPHERES 1000	14 - 18	1000 - 1400	

## THICKENERS • STABILIZERS • GELLING AGENTS

VIVAPUR® MCG Microcrystalline Cellulose and Carboxymethylcellulose Sodium, Ph. Eur., NF, E 460 (i) & E 466, FCC				
Dispersible cellulose. Thickener and stabilizer for "ready-to-use" and reconstitutable suspensions, emulsions and spray applications.				
Grade	NaCMC [%]	Particle Size	Viscosity [mPas]	Main Application
VIVAPUR® MCG 581 P	8.3 - 13.8	> 250 µm (60 mesh): max. 0.1 % > 75 µm (200 mesh): max. 35 %	72 - 168 (1.2 % solids)	For „ready-to-use“ suspensions and emulsions prepared with high shear forces.
VIVAPUR® MCG 591 P	8.3 - 13.8	> 250 µm (60 mesh): max. 0.1 % > 45 µm (325 mesh): max. 45 %	39 - 91 (1.2 % solids)	
VIVAPUR® MCG 611 P	11.3 - 18.8	> 250 µm (60 mesh): max. 0.1 % > 45 µm (325 mesh): max. 50 %	50 - 118 (2.6 % solids)	For reconstitutable dry suspensions.
VIVAPUR® MCG 811 P	11.3 - 18.8	> 250 µm (60 mesh): max. 3 %	2400 - 5600 (2.6 % solids)	Highly effective dispersible cellulose grade for a variety of suspensions, emulsions and spray applications.

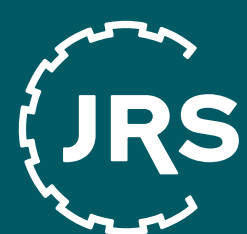
## VIVAPHARM® Alginates

Natural hydrocolloid, made from sustainably harvested seaweed

Grade	Characteristics	Available Viscosity Ranges [1 %, 20 °C]	Available Granulometry [98 % through]	Comp. Name	Function & Application
VIVAPHARM® Alginates Sodium Alginate	Powder, water-soluble	Ultra low to high viscosity grades covering a range of ~10 - 950 mPas	Various granulometries covering a range of 100 - 630 µm	USP/NF, Ph. Eur., E 401	Gelling and thickening agent: for controlled release (matrix tablets), microencapsulation and raft formation in anti-reflux applications. Provides film forming in filmstrips and can be applied for wound care.
VIVAPHARM® Alginates Calcium Alginate	Powder, water- insoluble, swelling	insoluble	160 µm	E 404	Tablet disintegration and wound care.
VIVAPHARM® Alginates Alginic Acid	Powder, water- insoluble, swelling	insoluble	160 µm	Ph. Eur., E 400	Swelling agent with high water binding capacity, is mainly applied for tablet disintegration.

For customized solutions please contact: [ExcipientsService@JRSPharma.de](mailto:ExcipientsService@JRSPharma.de)

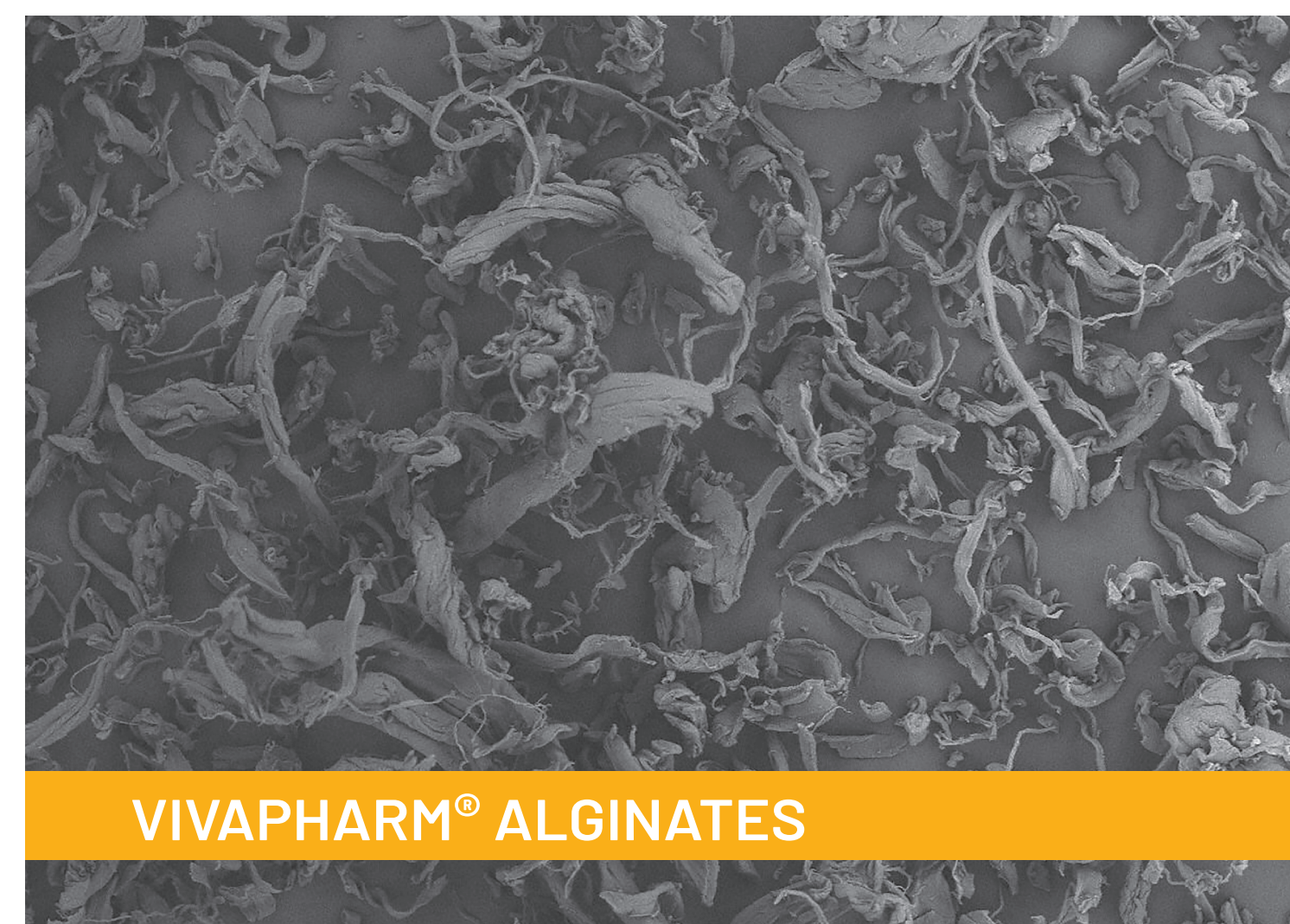
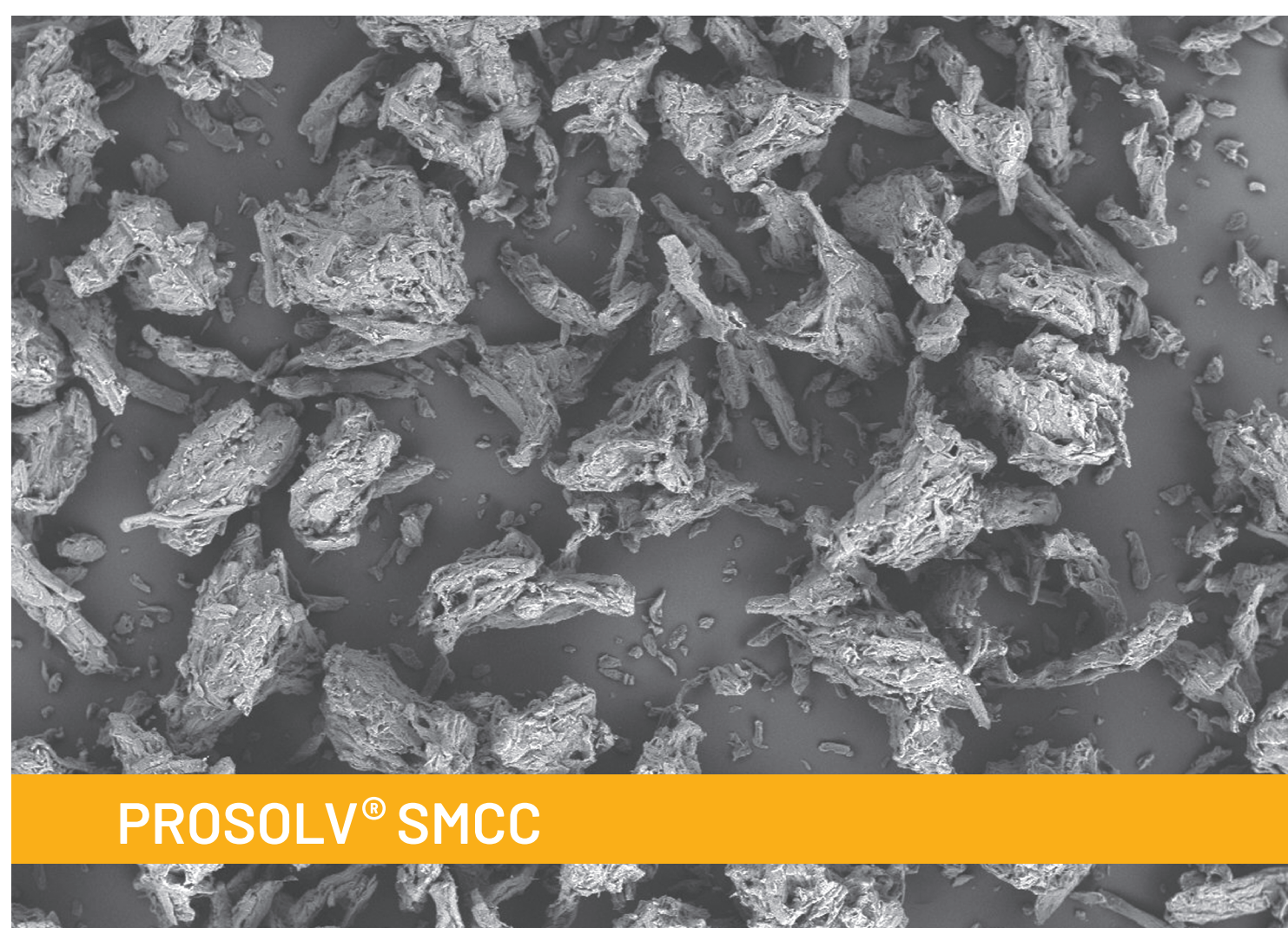
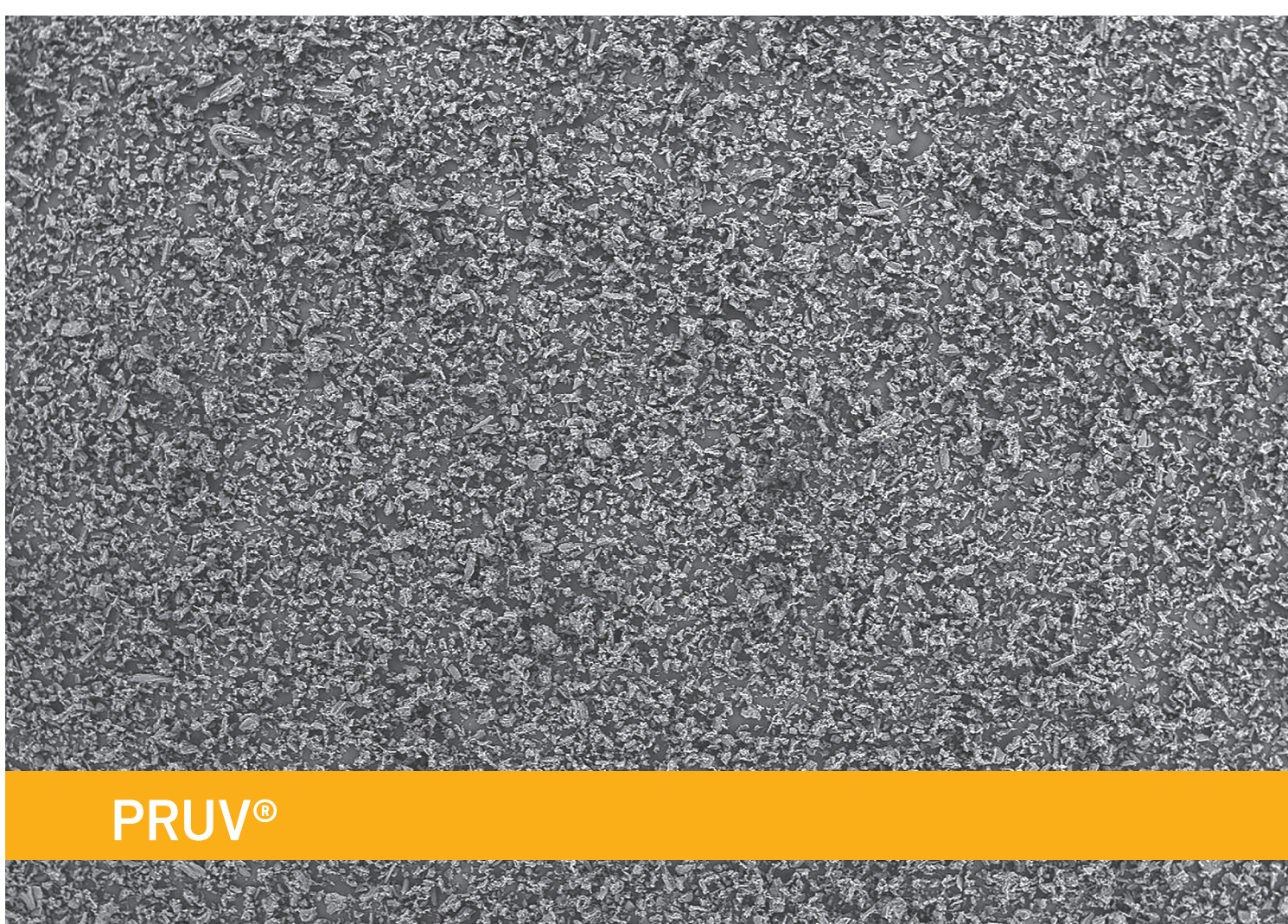
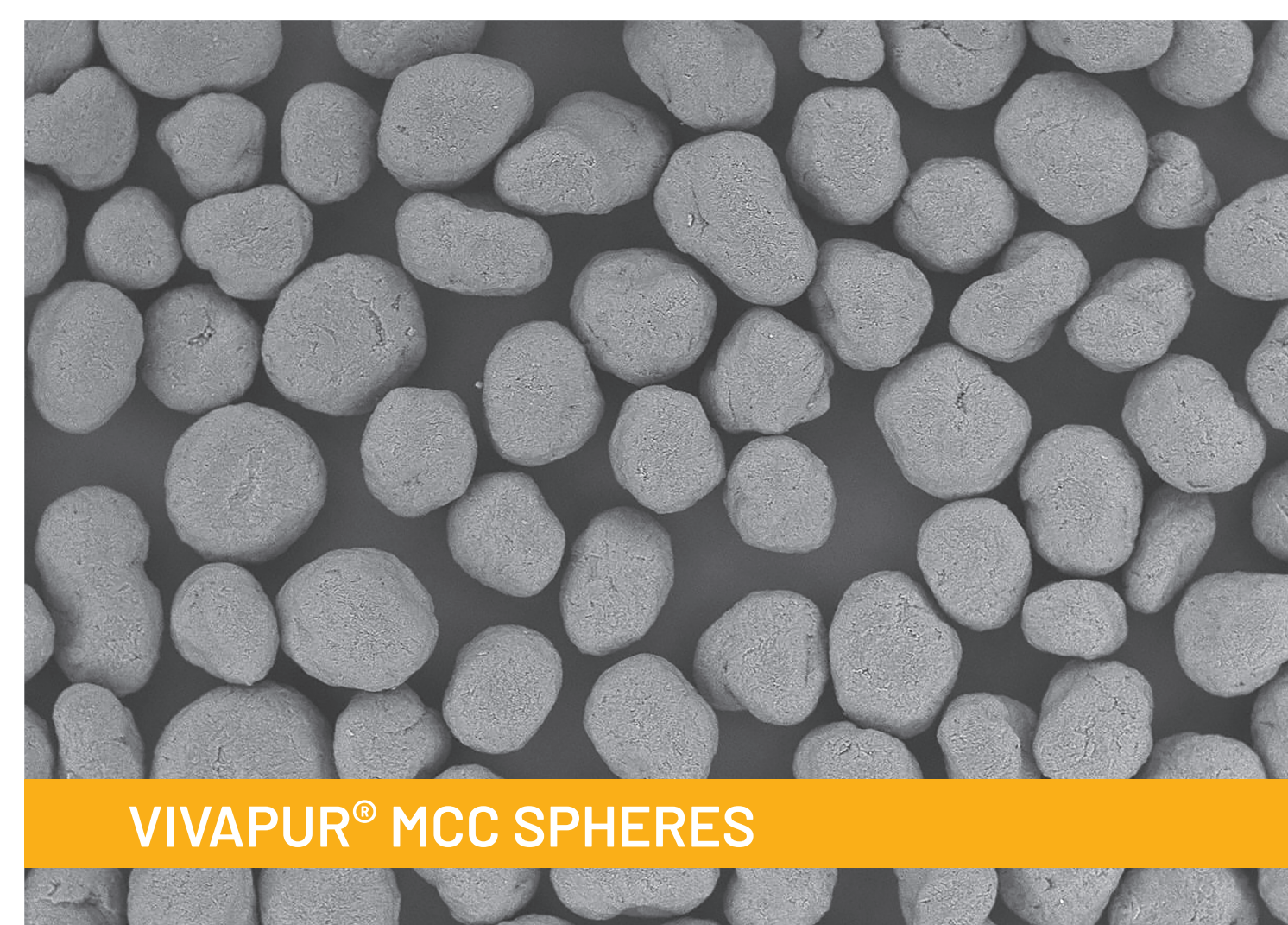
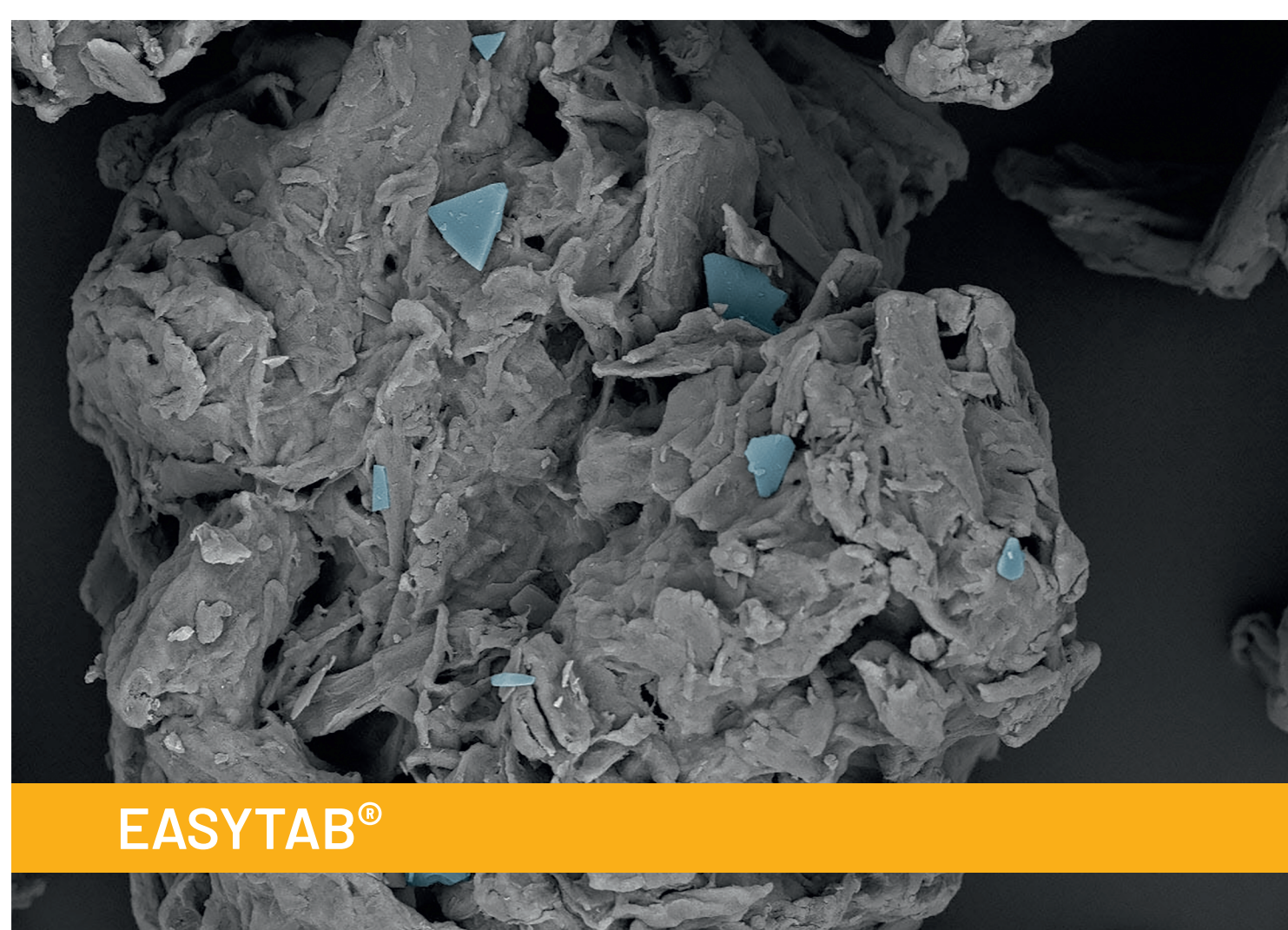
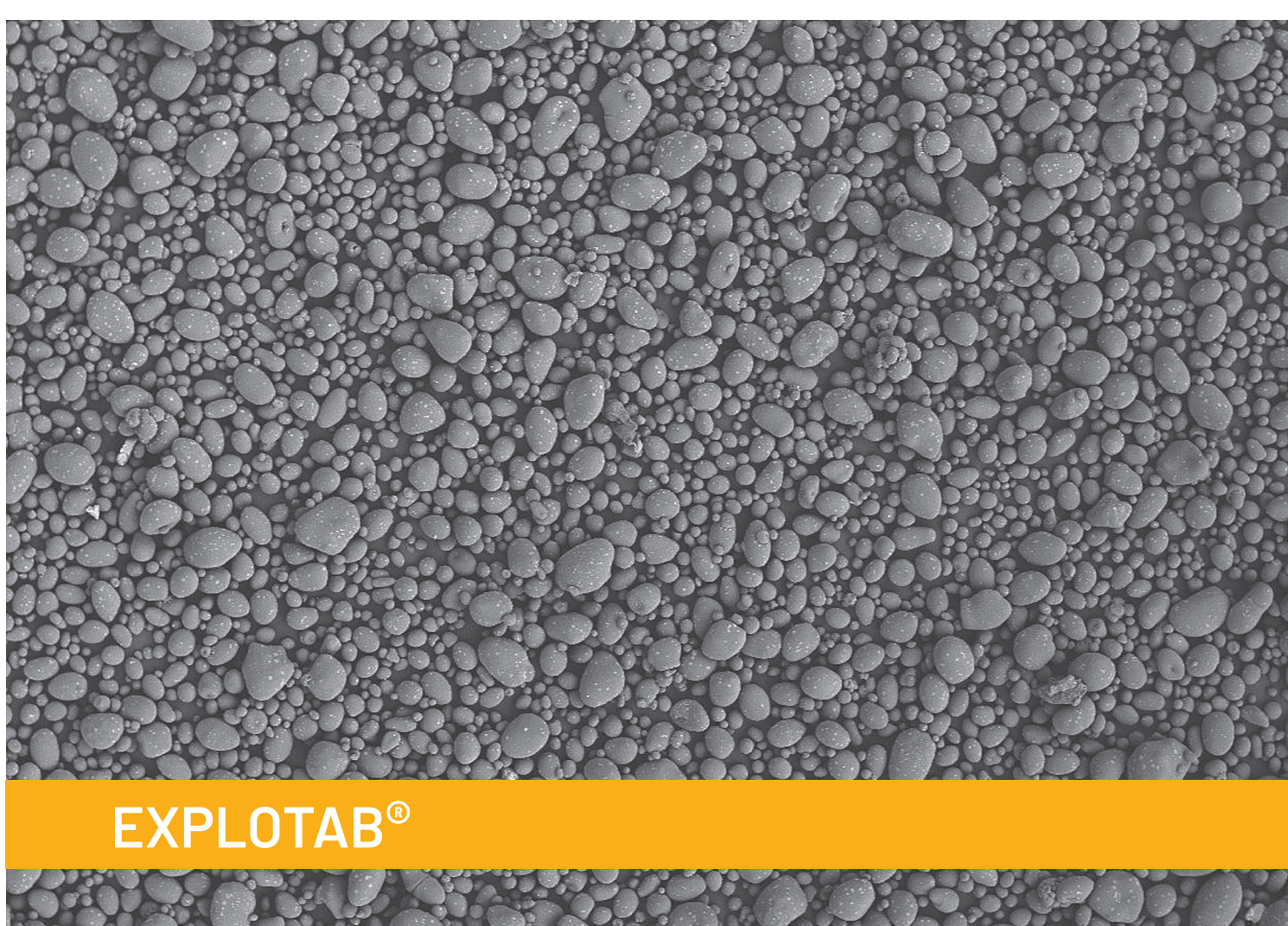
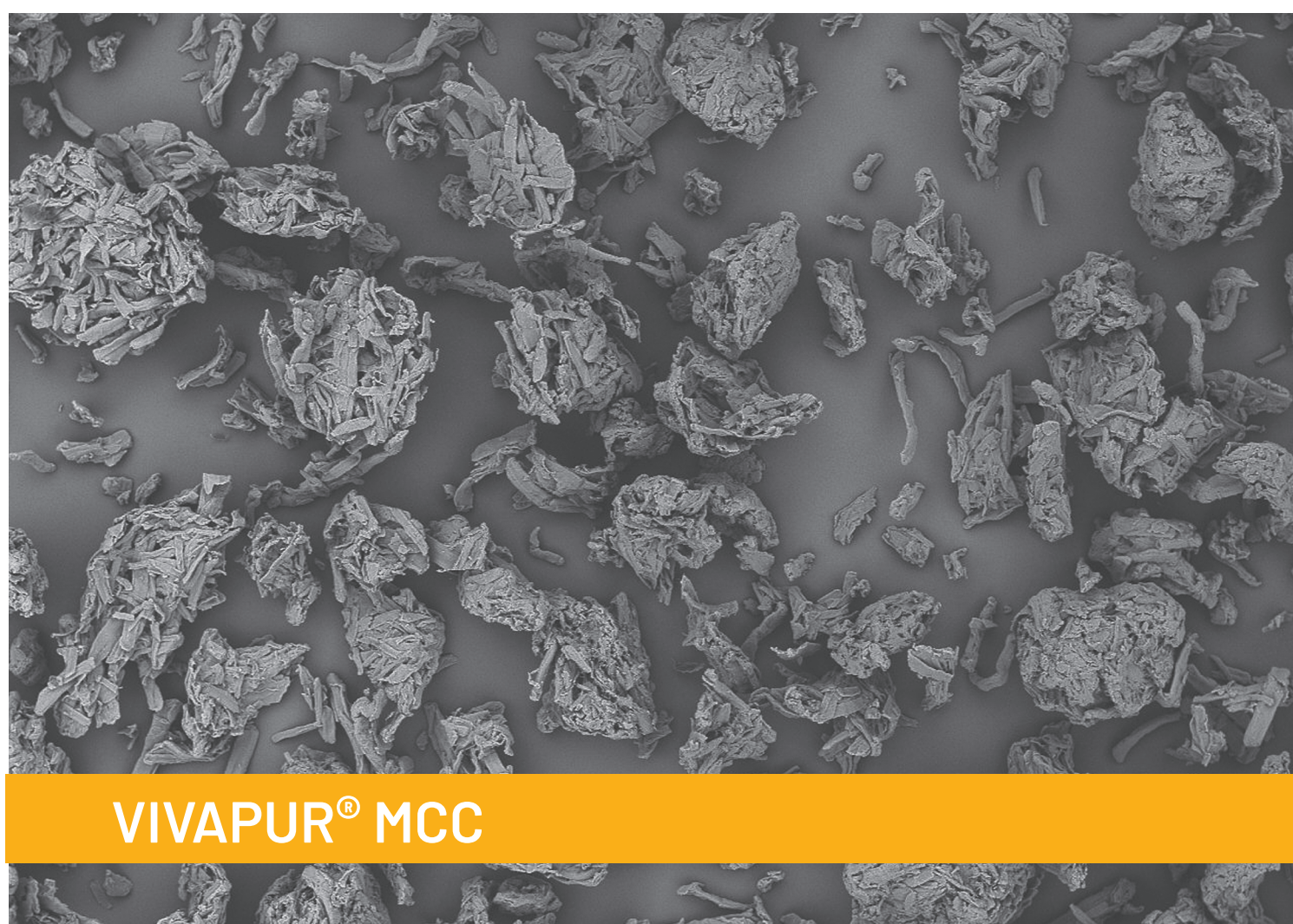




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