

Ensuring the precision you need – every time

Excipients for Instant & Modified Release dosage forms

pharma.basf.com



High quality – reliable functionality

With our broad portfolio of functional excipients for instant and modified release dosage forms, we offer a wide range of formulation possibilities to obtain the release profile you desire. Our high-quality, industry-leading products are manufactured under the appropriate GMP requirements and are accompanied by a comprehensive regulatory package.

At BASF, we have combined our technical expertise and decades of experience in five different platforms:



Instant & Modified Release



Solubilization





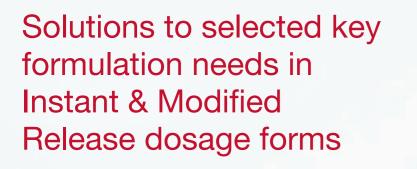
Skin Delivery



Biologics Solutions

Focusing our know-how and efforts on the respective platforms enables us to provide you with state-of-the-art products and the services you need.

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With our comprehensive know-how, decades of experience and a broad excipient portfolio, we have solutions for all key formulation challenges.

Formulation of oxidation sensitive APIs

Your need: Avoiding oxidation of sensitive active ingredients

Reducing oxidative substances in solid oral dosage forms is of increasing relevance for pharmaceutical formulators in order to protect active ingredients that are prone to oxidation. Peroxides are strong oxidizing agents and are well known to occur in many excipients. Specifically, they can be formed upon contact with atmospheric oxygen and are a particular problem for cost-effective packaging solutions such as multi-dose containers.

Our solution: PeroXeal™, Kollidon® 30 LP, Kollicoat® IR

We offer a comprehensive choice of high-quality functional excipients to ensure the stability of active ingredients. Our innovative PeroXeal™ packaging concept significantly reduces the presence of oxygen and thus limits peroxide formation in povidones and crospovidones to a minimum. In addition, we offer excipients with extremely low and even no peroxide formation at all – all depending on your specific formulation needs.

PeroXeal™

PeroXeal[™] is the combination of an oxygen impermeable inner liner packaging and a filling process under inert conditions. The following products are available in PeroXeal[™] packaging:

- Kollidon® 12 PF
- Kollidon® 90F
- Kollidon® 17 PF
- Kollidon® CI
- Kollidon® 25
- Kollidon® CL-F
- Kollidon® 30* Kollidon® CL-SF

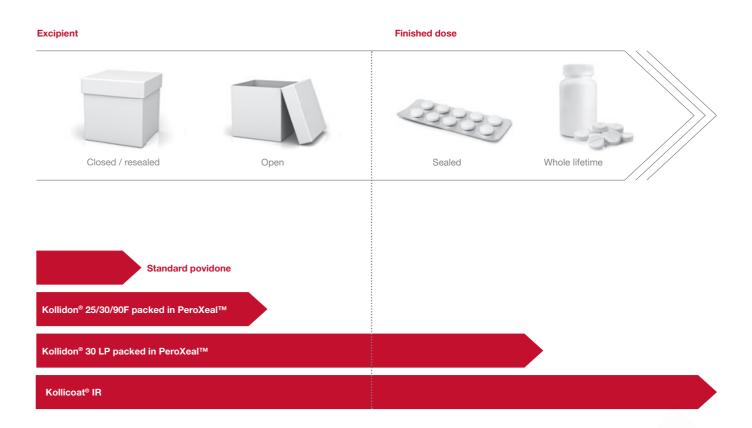
Kollidon® 30 LP

The enhanced low peroxide version of Kollidon® 30 with integrated sulfite-based antioxidant.

Kollicoat® IR

The latest addition to our binder portfolio. Kollicoat® IR exhibits no peroxide formation at all and is therefore particularly suitable for highly sensitive APIs and multi-dose container storage. It provides excellent wet binding performance in addition to application advantages such as low solution viscosity and very fast dissolution (even in cold water).

Your wet binder choice for minimizing peroxides











Sustained release formulations meeting the ADD regulations

Your need: Increase of patient safety through avoidance of alcohol-induced dose dumping

Modified release dosage forms are helpful for patients, as they provide pharmacological advantages and administration convenience. However, dose dumping, which is defined as the rapid release of a large portion or the entire dose, is of growing concern. This is often the consequence of the consumption of alcoholic beverages (so-called alcoholinduced dose dumping, ADD). This is of particular concern as it may unintentional put the patient at significant health risks. Regulatory bodies worldwide have lately adapted regulations in order to avoid the risk of such accidental dose dumping.

Our solution: Kollicoat® SR 30 D and Kollidon® SR

Kollicoat® SR 30 D and Kollidon® SR are highly suitable to form non-erodible sustained release matrices with an extensive design space for your desired release profile.

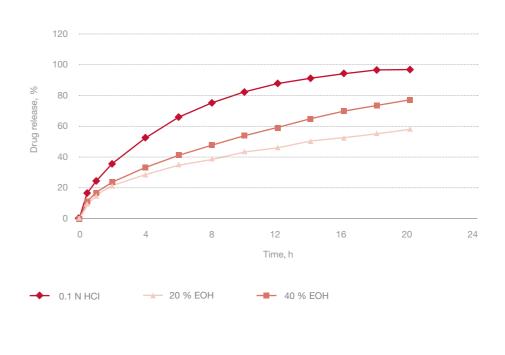
Kollicoat® SR 30 D is a low-viscosity, aqueous polymer dispersion of polyvinyl acetate which can be employed as a pH-independent sustained release excipient in film coating

In wet granulation it shows excellent processing characteristics due to the very low viscosity of the dispersion, despite the high solid content. Granules can then easily be compressed to matrix tablets due to the high plasticity and bondability of the polymer.

Kollidon® SR is a polyvinyl acetate-based free-flowing powder designed for direct compression of sustained release matrix tablets.

It is highly suitable for the use in formulations resistant to alcohol-induced dose dumping. Kollidon® SR can either be used by itself or in combination with other high-molecular weight excipients such as Kollidon® 90 F (see example on the next page).

Kollidon® SR in combination with Kollidon® 90 F to avoid alcohol-induced dose dumping













Cost-efficient formulations

Your need: **Growing importance of cost-efficiency**

The reduction of manufacturing cost is a major topic in pharmaceutical production in order to remain competitive in global markets. High-performance excipients are a significant driver for cost reduction as they can be processed faster, provide more robust production processes and significantly reduce downtimes and failure batches.

Our solution: Kollicoat® IR, Ludiflash®, Ludipress®, Ludipress® LCE

Kollicoat® IR – for cost-efficient instant release coatings

This is an innovative polymer derived from PEG and polyvinyl alcohol (PVA) which is very flexible and does not require the addition of plasticizers. Kollicoat® IR has an excellent water solubility allowing for both a fast preparation of the coating dispersion and excellent instant release of the finished dosage form. Due its low solution viscosity, Kollicoat® IR-based coating dispersions can be sprayed with comparatively high solid contents resulting in short process times. Moreover, Kollicoat® IRbased coating processes have proven to be very robust even at low temperatures.





Ludiflash® – the high-performance solution for orally disintegrating tablets

This is particularly tailored for orally disintegrating tablets (ODTs) manufactured by direct compression on standard equipment. Tablets based on Ludiflash® show exceptional hardness and friabillity, making them particularly suitable for blister packaging. Its unique combination of mannitol as a filler, Kollicoat® SR 30 D as a binder and Kollidon® CL-SF as a disintegrant, provides fast disintegration and a highly pleasant mouthfeel.

Ludipress® – easy and fast production of standard instant release tablets

This is a special spray agglomerate made of lactose as a filler, Kollidon® 30 as a binder and Kollidon® CL as a disintegrant. It provides superior performance when compared to granules of the same ingredients produced by standard processes. Ludipress® can simply be combined with active ingredients and other excipients immediately prior to tableting.

Ludipress® LCE - easy and fast production of lozenges, chewables and effervescent tablets

The white free-flowing granules consist of lactose as filler with Kollidon® 30 as binder and are designed for direct compression. Ludipress® LCE can simply be combined with active ingredients and other excipients immediately prior to tableting.





Formulations for patients with special needs

Your need: Formulations that meet the special requirements of pediatric and geriatric patients

Among all patient groups, a significant percentage of seniors and children have difficulties in swallowing most tablets and capsules. Additionally, these patients' compliance is often influenced by the taste of the formulation. To address the needs of these patient groups, orally disintegrating formulations and taste-masking approaches are intensively being utilized, as they further increase the convenience upon administration.



Our solution: Ludiflash®, Kollidon® CL-SF, Kollicoat® Smartseal 30 D, Kollicoat® SR 30 D

Ludiflash® – the efficient ready-to-use solution for ODTs and ODMTs

Ludiflash® is particularly tailored for orally disintegrating tablets (ODTs) and mini tablets (ODMTs) manufactured by direct compression on standard equipment. Its unique combination of mannitol as a filler, Kollicoat® SR 30 D as a binder and Kollidon® CL-SF as disintegrant provides fast disintegration and a highly pleasant mouthfeel.

Kollidon® CL-SF – the strong disintegrant for ODTs and ODMTs Kollidon® CL-SF is a super fine crospovidone grade for very fast disintegration of tablets. Its particles are so fine that the human tongue cannot detect them, which makes Kollidon® CL-SF highly suitable for orally disintegrating dosage forms. It can be employed as a disintegrant in standard processes, such as wet/ dry granulation and direct compression. In dry binding applications, Kollidon® CL-SF has the particular benefit of acting as both a binder and a disintegrant ("binding disintegrant").

Kollicoat® Smartseal 30 D – the coating polymer for maximum taste masking in granules, crystals, pellets and tablets Kollicoat® Smartseal 30 D is an aqueous dispersion of a basic acrylic polymer for taste masking and moisture protection. Polymer films of Kollicoat® Smartseal 30 D stay intact at typical saliva pH values but dissolve below pH 5.5, which ensures dissolution in the stomach. Very low coating levels have been proven to provide efficient taste masking of very bitter APIs like chinin.

Kollicoat® SR 30 D – the coating polymer for moderate taste masking in granules, crystals, pellets and tablets Kollicoat® SR 30 D is a polyvinylacetate-based aqueous polymer dispersion originally intended for sustained release formulations. However, thin films formulated in conjunction with pore formers can provide taste masking of the particles without significantly delaying their drug release.

Ph. Eur., USP, JP: Crospovidone Type B

Our functional excipients for Instant & Modified Release dosage forms – at a glance

Core formulation

Functionality		Process			Delivery form	Product
	Direct compression	Dry granulation (incl. roller compaction)	Wet granulation	Tablets	Particles (granules & ODTs multiparticulates, pellets, capsules)	
Binding			•			Kollidon® 25 P Kollidon® 30 P
						Kollidon® 30 LP P
						Kollidon® 90 F
			•	•		Kollicoat® IR
	•	•	•	•	•	Kollidon® VA 64
	•	•		•		Kollidon® VA 64 Fine
						Kollidon® CL-M
	•					Kollidon® CL-SF P
Disintegration						Kollidon® CL P
						Kollidon® CL-F
				•		Kollidon® CL-SF P
						Kollidon® CL-M

Description	Monograph title*/Chemical name	
The original. Medium molecular weight binder with low peroxide level thanks to Peroxeal packaging leading to extended shelf life.	Ph. Eur., USP, JP: Povidone	
Our low peroxide grade with antioxidants.	Ph. Eur., USP, JP: Povidone	
High molecular weight binder with highest binding capacity.	Ph. Eur., USP, JP: Povidone	
Powerful and peroxide free wet binder for oxidation-sensitive drugs.	Ph. Eur.: Macrogol Poly(vinyl Alcohol) Grafted Copolymer; USP-NF: Ethylene Glycol and Vinyl Alcohol Graft Copolymer; JPE: Polyvinyl Alcohol-Polyethylene Glycol Graft Copolymer	
For direct compression, roller compaction and wet granulation, suitable for markets with higher humidity exposure.	Ph. Eur., USP: Copovidone; JPE: Copolyvidone	
Highly efficient binder with fine particle size for roller compaction and direct compression. Suitable for markets with high humidity exposure.	Ph. Eur., USP: Copovidone; JP: Copolyvidone	
Roller compaction and direct compression including slight disintegration functionality.	Ph. Eur., USP, JP: Crospovidone Type B	
2 in 1 functionality - efficient dry binder & fast disintegrant suitable for roller compaction.	Ph. Eur., USP, JP: Crospovidone Type B	
Maximum disintegration.	Ph. Eur., USP, JP: Crospovidone Type A	
Balance of strong disintegration and optimal surface homogeneity.	Ph. Eur., USP, JP: Crospovidone Type A	
Particularly suitable for small tablets and ODTs, providing very pleasant mouthfeel due to finer	Ph. Eur., USP, JP: Crospovidone Type B	

Disintegrant with micronized particles, delivering slight disintegration when used as binder.

P Packed in PeroXeal™ packaging

^{*}Monograph references were updated at time of printing, please visit us online for the latest status

Monograph title*/Chemical name

Core formulation

Functionality		Process		Delivery form			Product
	Direct compression	Dry granulation (incl. roller compaction)	Wet granulation	Tablets	Particles (granules & multiparticulates, pellets, capsules)	ODTs	
Matrices and fillers	•		•				Kollidon® SR
							Ludiflash®
							Ludipress®
		•					Ludipress® LCE
Wetting and dissolution				•			Kolliphor® SLS Fine
enhancement				•			Kolliphor® P 188 micro
	•	•		•			Kolliphor® P 407 micro
			•	•			Kolliphor® SLS
			•	•			Kolliphor® P 188
			•	•			Kolliphor® P 407
Lubrication							Kolliphor® SLS Fine
				•			Kolliphor® P 188 micro
				•			Kolliphor® P 407 micro
				•			Kolliwax® SA
	•	•		•			Kolliwax® S Fine
							Kolliwax® HCO

	<u> </u>
For non-erodible matrices using direct compression.	80 % PVAc, 19 % Povidone, 0.8 % SLS, 0.2 % Silica
Ready-to-use ODT solution with superior mouthfeel.	90 % Mannitol, 5 % Crospovidone, 5 % Polyvinyl Acetate
Ready-to-use direct compression solution for tablets.	93 % Lactose, 3.5 % Povidone, 3.5 % Crospovidone
Ready-to-use direct compression solution for lozenges, chewables and effervescent tablets.	96.5% Lactose, 3.5% Povidone
Wetting agent in tabletting, reducing disintegration time. Particularly suitable for direct compression.	Ph. Eur.: Sodium Laurilsulfate; USP-NF, JP: Sodium Lauryl Sulfate
Average particle size of 50 μm makes it effective dissolution enhancer, lubricant $\&$ wetting agent in direct compression.	Ph. Eur., USP-NF: Poloxamer 188; JPE: Polyoxyethylene (160) Polyoxypropylene (30) Glycol
Average particle size of 50 μm makes it effective dissolution enhancer, lubricant $\&$ wetting agent in direct compression.	Ph. Eur., USP-NF: Poloxamer 407; JPE: Polyoxyethylene (196) Polyoxypropylene (67) Glycol
Wetting agent in wet granulation, reduces disintegration time.	Ph. Eur.: Sodium Laurilsulfate; USP-NF, JP: Sodium Lauryl Sulfate
Dissolution enhancer, lubricant & wetting agent particularly suitable for wet granulation.	Ph. Eur., USP-NF: Poloxamer 188; JPE: Polyoxyethylene (160) Polyoxylpropylene (30) Glycol
Dissolution enhancer, lubricant & wetting agent particularly suitable for wet granulation.	Ph. Eur., USP-NF: Poloxamer 407; JPE: Polyoxyethylene (196) Polyoxypropylene (67) Glycol
Hydrophilic lubricant. Due to its water solubility particularly suitable for effervescent tablets.	Ph. Eur.: Sodium Laurilsulfate; USP-NF, JP: Sodium Lauryl Sulfate
Hydrophilic lubricant. Due to its water solubility particularly suitable for effervescent tablets.	Ph. Eur., USP-NF: Poloxamer 188; JPE: Polyoxyethylene (160) Polyoxypropylene (30) glycol
Hydrophilic lubricant. Due to its water solubility particularly suitable for effervescent tablets.	Ph. Eur., USP-NF: Poloxamer 407; JPE: Polyoxyethylene (196) Polyoxypropylene (67) glycol
Lipophilic lubricant, especially for sensitive acidic APIs.	Ph. Eur., USP-NF, JP: Stearyl Alcohol
Lipophilic lubricant. Particularly suitable for sensitive APIs.	Ph. Eur., USP-NF, JP: Stearic Acid 50
Lipophilic lubricant. Particularly suitable for sensitive APIs.	Ph. Eur., Castor Oil, Hydrogenated, USP-NF: Hydrogenated Castor Oil, JPE: Hydrogenated Oil

Description

P Packed in PeroXeal[™] packaging
*Monograph references were updated at time of printing, please visit us online for the latest status

Ph.Eur: Macrogols; USP: Polyethylene Glycol; JP:

Ph. Eur., USP-NF: Poloxamer 124; JPE: Polyoxyethylene (20)

Methyl-Methacrylate - Diethylaminoethyl Methacrylate

Ph. Eur.: Poly(vinyl Acetate) Dispersion 30 per cent; USP:

Ph. Eur.: Methacrylic Acid - Ethyl Acrylate Copolymer (1:1) Dispersion 30 per cent; USP: Methacrylic Acid Copolymer Dispersion; JPE: Methacrylic Acid Copolymer LD

Macrogol 400; FCC: Polyethylene Glycols

Polyoxypropylene (20) Glycol

Polyvinyl Acetate Dispersion

Copolymer

Coating formulation

Functionality	Proc	ess		Release		De	elivery form	Product
	Aqueous	Other	Instant	Enteric	Sustained	Tablets	Particles (granules & multiparticulates, pellets, capsules)	
Film forming								
Film forming	•	•	•			•	•	Kollicoat® IR
	-		•			•		Kollicoat® Protect
	•		•			•	•	Kollicoat® Smartseal 30 D
	•			•			•	Kollicoat® MAE 30 DP
	•	•		•			•	Kollicoat® MAE 100 P
	•	•		•		•		Kollicoat® MAE 100-55
					•			Kollicoat® SR 30 D
		•			•			Kolliwax® HCO
	•	•	•			•	•	Kollidon® VA 64
Plasticizing								Kollisolv® GTA
								Kolliphor® RH 40
						•		Kollisolv® PG
								Kollisolv® PEG 300
						•		Kollisolv® PEG 400
						•	•	Kollisolv® P 124
Taste masking								Kollicoat® Smartseal 30 D
			•					Kollicoat® SR 30 D
	•			•		•		Kollicoat® MAE 30 DP

Description	Monograph title*/Chemical name
Robust yet flexible water soluble instant release coating polymer. Efficient and easy to handle due to low viscosity and high flexibility.	Ph. Eur.: Macrogol Poly(vinyl Alcohol) Grafted Copolymer; USP-NF: Ethylene Glycol and Vinyl Alcohol Graft Copolymer; JPE: Polyvinyl Alcohol-Polyethylene Glycol Graft Copolymer
Instant release coating polymer for the formulation of of oxygen and moisture protective coatings.	Excipient based on Kollicoat® IR and monographed raw materials
Highly effective taste masking at very low coating levels. Specifically suitable for pellets & particles for ODTs due to easy and non-tacky processability.	Methyl-Methacrylate - Diethylaminoethyl Methacrylate Copolymer
Enteric coating with release above pH 5.5, available as a 30 % solids content dispersion.	Ph. Eur.: Methacrylic Acid – Ethyl Acrylate Copolymer (1:1) Dispersion 30 per cent; USP: Methacrylic Acid Copolymer Dispersion; JPE: Methacrylic Acid Copolymer LD
Enteric coating with release above pH 5.5, available as partially preneutralized powder saving you the neutralization step.	Ph. Eur.: Methacrylic Acid – Ethyl Acrylate Copolymer (1:1), Type B; USP-NF: Partially-Neutralized Methacrylic Acid and Ethyl Acrylate Copolymer
Non-neutralized, fast redispersing, completely dust-free powder grade for aqueous & organic coating.	Ph.Eur.: Methacrylic Acid - Ethyl Acrylate Copolymer (1:1) Type A; USP-NF: Methacrylic Acid and Ethyl Acrylate Copolymer; JPE: Dried Methacrylic Acid Copolymer LD
pH-independent sustained release film coating polymer used to film coat small particles, pellets, granules and tablets.	Ph. Eur.: Poly(vinyl Acetate) Dispersion 30 per cent; USP: Polyvinyl Acetate Dispersion
For sustained release melt coating.	Ph. Eur.: Castor Oil, Hydrogenated; USP-NF: Hydrogenated Castor Oil; JP: Hydrogenated Oil
Aqueous sugar film coating for thinner films and a faster process. Organic subcoating for highly moisture sensitive cores.	Ph. Eur., USP: Copovidone; JPE: Copolyvidone
Plasticizer particularly suitable for tablet coatings.	Ph. Eur., USP: Triacetin
Plasticizer used in coatings and in solid polymeric matrices.	Ph. Eur.: Macrogolglycerol Hydroxystearate; USP: Polyoxyl 40 Hydrogenated Caster Oil
Liquid plasticizer with high ADI.	Ph. Eur., JP, FCC, USP: Propylene Glycol
Liquid plasticizer commonly used in tablet coatings. Also used as solvent in liquid formulations.	Ph. Eur.: Macrogols; USP: Polyethylene Glycol, JPE: Macrogol 300; FCC: Polyethylene Glycols

Liquid plasticizer commonly used in tablet coatings.

Thin coating layer provides basic taste masking properties.

Thin coating layer for taste masking; suitable for particles.

Liquid plasticizer commonly used in tablet coatings. Also used as solvent in liquid formulations.

Highly effective taste masking, providing efficacy already at very low coating levels. Specifically

suitable for pellets and particles for ODTs due to its easy and non-tacky processability.

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Coating formulation

Functionality	Prod	cess		Release		De	elivery form	Product
	Aqueous	Other	Instant	Enteric	Sustained	Tablets	Particles (granules & multiparticles, pellets, capsules)	
Moisture protection								Kollicoat® Protect
								Kollicoat® Smartseal 30 D
	•		•					Kollidon® VA 64
Pore forming	•		•					Kollicoat® IR
	•					•		Kollicoat® MAE 30 DP
								Kollicoat® MAE 100 P
								Kollidon® 12 PF
	•						•	Kollidon® 17 PF Kollidon® 25 Kollidon® 30 Kollidon® 90 F
								Kollidon® VA 64
	•				•	•	•	Kolliwax® HCO
								Kolliwax® S Fine

Description	Monograph title*/Chemical name
	1
Provides an effective moisture barrier in combination with pigments or talc.	Excipient based on Kollicoat® IR and monographed raw materials
Very low water vapor permeation; can be applied as clear coating to provide full moisture protection.	Methyl-Methacrylate – Diethylaminoethyl Methacrylate Copolymer
In combination with Kollicoat® IR or Kollicoat® Protect, Kollidon® VA64 further reduces the water vapor permeation rate.	Ph. Eur., USP: Copovidone; JPE: Copolyvidone
	DI 5 M I DI (: I M I D 0 () I D
Peroxide-free water-soluble pore former for sustained release tablets and pellet coating.	Ph. Eur.: Macrogol Poly(vinyl Alcohol) Grafted Copolymer; USP-NF: Ethylene Glycol and Vinyl Alcohol Graft Copolymer; JPE: Polyvinyl Alcohol-Polyethylene Glycol Graft Copolymer
Aqueous dispersion for use as pore former for targeted opening in the intestine to avoid release in the stomach.	Ph. Eur.: Methacrylic Acid - Ethyl Acrylate Copolymer (1:1) Dispersion 30 per cent; USP: Methacrylic Acid Copolymer Dispersion; JPE: Methacrylic Acid Copolymer LD
Pre-neutralized powderous pore former for targeted opening in the intestine to avoid release in the stomach.	Ph. Eur.: Methacrylic Acid - Ethyl Acrylate Copolymer (1:1), Type B; USP-NF: Partially-Neutralized Methacrylic Acid and Ethyl Acrylate Copolymer
Soluble pore formers for sustained release tablet or pellet coating.	Ph. Eur., USP, JP: Povidone
Soluble pore formers for sustained release tablet or pellet coating.	Ph. Eur., USP, JP: Povidone
Soluble pore former for sustained release tablet coatings.	Ph. Eur., USP: Copovidone; JPE: Copolyvidone
Slows down drug release when used as pore former in sustained release formulations.	Ph. Eur.: Castor Oil, Hydrogenated; USP-NF: Hydrogenated Castor Oil; JP: Hydrogenated Oil
In combination with Kollicoat® SR 30 D, Kolliwax® S Fine creates sustained release profiles.	Ph. Eur., USP-NF, JP: Stearic Acid 50

P Packed in PeroXeal[™] packaging
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Our service offer

We enable our customers to create value-adding, unique and differentiating formulations by:

- Providing in-depth expertise in all steps of the production of solid and liquid oral dosage forms
- Offering a broad and effective portfolio of functional excipients with best-in-class performance
- Sharing our expert know-how in excipients and formulations

Our tools

- Application support based on expertise and data, using major processing equipment
- Publications
- Seminars, workshops, trainings

For more information visit us on pharma.basf.com

For sample requests contact us at pharma.solutions@basf.com

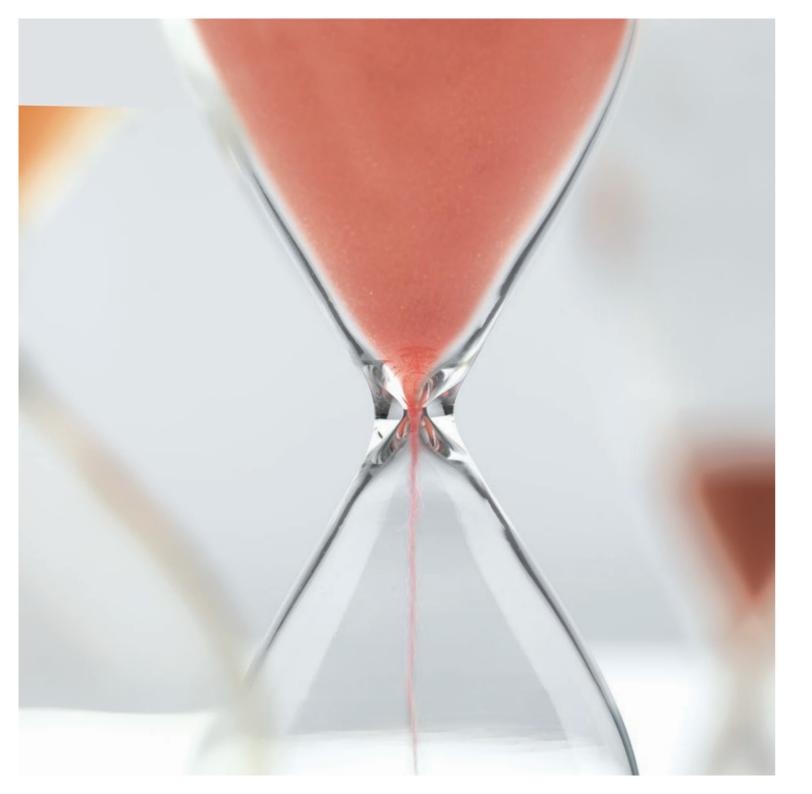


The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

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Monograph title (Ph. Eur./USP) / chemical name	BASF brand name	Page
80 % PVAc, 19 % Povidone, 0.8 % SLS, 0.2 % Silica	Kollidon® SR	8, 9, 16
90 % Mannitol, 5 % Crospovidone, 5 % Polyvinyl Acetate	Ludiflash®	11, 13, 16
93 % Lactose, 3.5 % Povidone, 3.5 % Crospovidone	Ludipress®	11, 16
96.5 % Lactose, 3.5 % Povidone	Ludipress® LCE	11, 16
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Sodium Lauryl Sulfate	Kolliphor® SLS Fine, Kolliphor® SLS	16
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Stearyl alcohol	Kolliwax® SA	16
Triacetin	Kollisolv® GTA	18



Kollicoat® MAE 100-55 A complete match – just better.

- Direct substitution in commercial formulations
- Easier handling due to dust-free material
- Compliant with respective monographs

Kollicoat® MAE 100-55 is the latest addition to our functional excipient portfolio, extending our offer of pH > 5.5 enteric release products based on a methacrylic acid-ethylacrylate copolymer.

