

**Seal Concept**<sup>®</sup>

DICHTUNGEN & HYDRAULIK



# Seals & Functional Components

for the food and pharmaceutical industry



TOGETHER FOR THE BEST OF ALL SOLUTIONS



## Seal Concept, a competent partner for the food and pharmaceutical industry

In these industries, particularly high demands are placed on seals and plastic components:

- High chemical resistance to aggressive chemicals and cleaning methods
- High temperature resistance during cleaning and sterilization
- Optimal friction and wear properties with minimal lubrication / dry running
- Special coloring of seals (white / blue / red / natural) for early detection of abrasive particles in the product
- Special design to avoid areas that are difficult to sterilize (dead space-free), where the risk of microbial contamination exists
- Easy-to-clean and sterilizable surfaces
- Non-toxic material
- Compliance with a variety of national and international food laws and regulations for pharmaceutical use

Seal Concept is capable of providing tailor-made solutions for your production and packaging machines in the shortest possible time:

- Pharmaceutical products and cosmetics
- Beverages
- Dairy products
- Meat and sausage products
- Bakery items
- Tea, coffee, sugar, salt, spices

Individual pieces to large series are produced within a few days in our in-house production.

# Seal Concept

## Our detectable materials



Description	Material Designation	Color	Datasheet Number	Hardness	°C Operating Temperature	GMP EU 2023/2006	FDA Conformity	VO (EU) 1935/2004	VO (EU) 10/2011	BSE/TSE-free	BfR Recommendation	3A Sanitary	USP Class VI	Detectable
HPU/B/MDx	HPU776	blue	776	95 ShA	-20 to 90 °C	x	x	x	x	x				x
EPDM/B/MDx	EPDM775	blue	775	81±5 Sh	-30 to 135 °C	x	x	x		x		x		x
FPM/B/MDx	FKM777	blue	777	80±5 Sh	-15 to 200 °C	x	x	x		x		x		x
POM/B/MD	POM792	blue	792	155 Mpa	-30 to 105 °C	x	x	x	x					x
PEEK/B/MD	PEEK790	blue	790	106 HRM	-50 to 250 °C	x	x	x	x					x
PE/B/MD	PE791	blue	791	62 ShD	-150 to 80 °C	x	x	x	x					x
NBR/B/DTx	NBR878	blue	878	85±5 Sh	-30 to 100 °C	x	x	x						x

In the production and filling systems of the food industry, material fractures and collisions can never be completely ruled out. There is also always a risk of product contamination by foreign particles.

Protection against contamination during processing is of the utmost importance, especially in this context. Small fragments of a seal can be detected through magnetic or X-ray systems if they have entered the processed products.

In general, these seals and functional parts are designed in the color blue.

Metal detectable seals are now available from us for the „Food & Beverage“ industry. By using these special sealing elements, economic risks due to contaminated products can be significantly minimized.

◆ Blue color for visual detection, as this dye is rarely found in natural foods and in nature.



### Detectability

Detectability depends on individual settings of the metal detectors. We recommend ordering a sample product for testing purposes first.

Our range of detectable materials is constantly expanding!

# GMP

## Good Manufacturing Practice

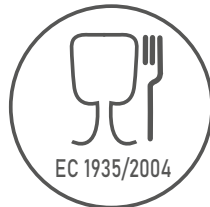
Good Manufacturing Practice Regulation (EG) 2023/2006  
Our in-house production is equipped with a quality system in line with the applicable GMP regulations. The following requirements are thereby ensured:

- Documentation of the required data sheets and conformity certificates
- Traceability of material batches
- Training and sensitization of employees
- Cleaning and packaging of items
- Labeling of items and packaging
- Continuous communication with material suppliers regarding the development and updating of material approvals

### Diverse Foods - Various Materials

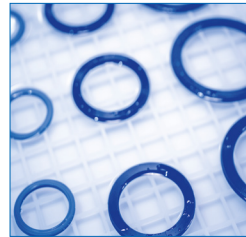
Seals for food technology require special sealing materials. These must possess the following properties:

- Chemical resistance
- Resistance to high and low temperatures
- Abrasion resistance
- Resistance to aggressive and hot cleaning processes



**We are primarily interested in solving your problem!**

Especially in demanding applications where high standards for cleanability, sterilization and hygienic design are required. We, as a certified manufacturer, are your competent partner. We guarantee a prompt analysis and implementation of your sealing solution by our experienced specialists, utilizing food-compliant materials.





## Areas of application

A multitude of successful customer projects with standard products and custom sealing solutions form the basis for our extensive knowledge of applications and requirements in the food, beverage and pharmaceutical industries.

## Product Benefits & Highlights at a Glance

- Support and optimization of the process reliability of your production lines
- Reduced downtimes through optimal material selection
- Excellent chemical resistance to product and cleaning agents
- Resistant to alkaline and acidic CIP media, FDA- and EU-compliant materials
- „Dead space-free“ design for maximum cleanliness



### Profile examples

### Application



Shaft sealing  
Bearing protection  
Meat cutter



Wiper  
Friction-reduced  
Rotary and swivel motion



Clamp Seal  
Special design



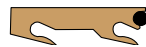
Rotary Seal  
Pressure/high-speed  
Bearing seal



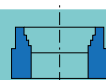
Wiper  
Hygienic design  
Dry running  
Filling machines



Aseptic complete piston  
Hygienic design  
Without metal springs  
Filling and dosing machines



Filling Valve seal  
Hygienic design  
Dairy products



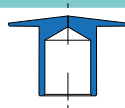
Sealing rings for  
axial sealing of containers



Aseptic special seal for  
milk processing



Screw head seals



Hygienic screw head seal

## Do you have any further questions?

Our technical advisors are available at any time for further information. We are happy to arrange a personal consultation at your location. You are also welcome to visit us at our facility in Bobingen at any time to personally witness our working methods and quality.

**Expertise and high technical competence are the prerequisites for high-quality precision products.**

**SealConcept**  
DICHTUNGEN & HYDRAULIK





## A selection of our food-grade materials:

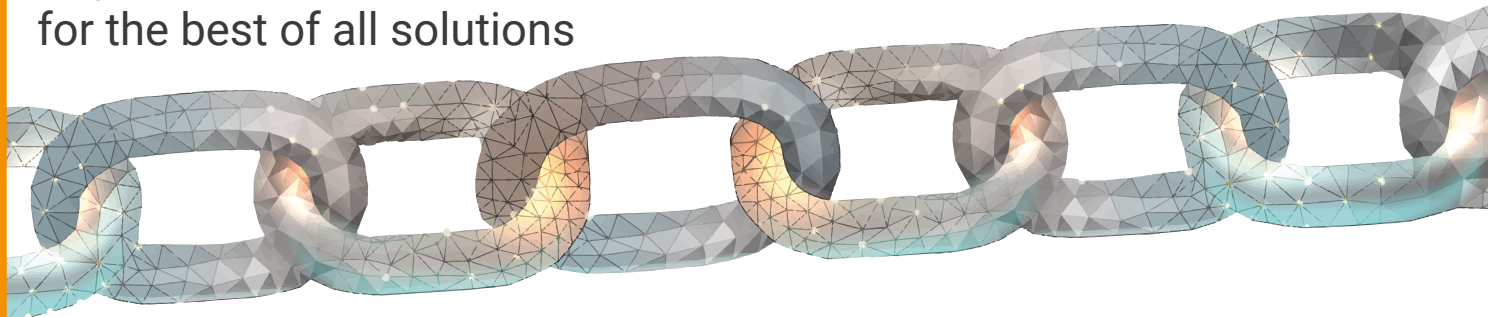
Description	Material Designation	Color	Datasheet Number	Hardness	°C Operating Temperature	GMP EU 2023/2006	FDA Conformity	VO (EU) 1935/2004	VO (EU) 10/2011	BSE/TSE-free	BfR Recommendation	3A Sanitary	USP Class VI	Detectable
HPU	HPU580	red	580	95±2 ShA	-30 to +125 °C	x	x	x	x	x		x		
HPUD	HPU364	red	364	95±2 ShA	-20 to +115 °C	x	x	x	x	x		x		
HPUV	HPU684	purple	684	95±2 ShA	-30 to +115 °C	x	x	x	x	x		x		
HPUT	HPU583	blue	583	95±2 ShA	-50 to +105 °C	x	x	x	x	x				
HPUDB	HPU690	blue	690	95±2 ShA	-20 to +115 °C	x	x	x	x	x		x		
HPUDN	HPU693	natur	693	95±2 ShA	-20 to +115 °C	x	x	x	x	x				
HPU	HPU914	blau	914	57±3 ShD	-30 to +125 °C		x	x	x			x		
NBR/FDA	NBR930	white	930	85±5 ShA	-22 to +100 °C	x	x	x		x				
NBR/B/FDA	NBR754	blue	754	80±5 ShA	-30 to +100 °C	x	x	x		x				
HNBR90	HNBR552	black	552	90±5 ShA	-20 to +150 °C		x			x		x		
EPDM/W/FDA	EPDM113	white	113	85±5 ShA	-50 to +100 °C	x	x	x		x		x		
EPDM/FDA	EPDM706	black	706	85±5 ShA	-45 to +130 °C	x	x	x		x		x		
EPDM/B/FDA	EPDM691	blue	691	81±5 ShA	-30 to +130 °C	x	x	x		x				
FPM/FDA/braun	FKM117	brown	117	85±5 ShA	-25 to +210 °C	x	x	x		x		x		
FPM/B/FDA	FKM689	blue	689	80±5 ShA	-17 to +200 °C	x	x	x		x		x		
SIL	VMQ138	red	138	85±5 ShA	-55 to +210 °C	x	x	x		x		x		
SILB	VMQ139	blue	139	85±5 ShA	-55 to +180 °C	x	x	x		x				
SILW	VMQ692	white	692	85±5 ShA	-60 to +200 °C		x			x				



Description	Material Designation	Color		Datasheet Number	Hardness	°C Operating Temperature	GMP EU 2023/2006	FDA Conformity	VO (EU) 1935/2004	VO (EU) 10/2011	BSE/TSE-free	BfR Recommendation	3A Sanitary	USP Class VI	Detectable
SILTR	VMQ597	transp.		597	85±5 ShA	-60 to +200 °C	x	x	x		x	x			
PTFE Virginal	PTFE128	white		128	≤ 51 ShD	-200 to +260 °C	x	x	x	x	x				
PTFE 25% Glas	PG046	gray		46	59 ShD	-200 to +260 °C	x	x	x	x	x				
PTFE 25% Glas	PG568	gray		568	58 ShD	-200 to +260 °C		x	x	x	x		x	x	
PTFE türkis	PT322	turquoise		322	56 ShD	-200 to +260 °C	x	x	x	x	x				
PTFE+PEEK	PM575	beige		575	32 Mpa	-200 to +260 °C	x	x	x	x	x		x		
PTFE+Ekonol	PM056	beige		56	57 ShD	-200 to +260 °C	x	x	x	x	x				
TFM/M1	PM576	brown		576	31 Mpa	-200 to +230 °C	x	x	x	x	x				
TFM/M4	PM613	brown		613	32 Mpa	-200 to +230 °C	x	x	x	x	x				
Polyamid	PA122	white		122	165 Mpa	-30 to +100 °C		x			x				
POM	POM127	white		127	140 Mpa	-50 to +105 °C	x	x	x	x					
PEEK	PEEK245	gray		245	190 Mpa	-50 to +50 °C	x	x	x	x	x				
PVDF	PVDF176	beige		176	80 Mpa	-30 to +150 °C	x		x	x					
PE-UHMW	PE-UHMW681	black		681	61 ShD	-200 to +80 °C		x							
PE-UHMW	PE-UHMW368	white		368	61 ShD	-265 to +80 °C	x	x	x	x	x				
PA12G	PA694	beige		694	76 ShD	-40 to +120 °C	x	x	x	x	x			x	

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# Together for the best of all solutions



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Please visit our website for contact information for specific individual persons.

# Seal Concept®

DICHTUNGEN & HYDRAULIK

- Seals & Seal Kits
- Hydraulic Components
- Compact Power Modules
- Hydraulic Integrated Circuits
- Custom Solutions



CONCEPTS

SOLUTIONS

SERVICES