FUNCTIONAL BLENDS

FOR EMULSIFIED BOILED SAUSAGES



PERFORMANCE INSIDE

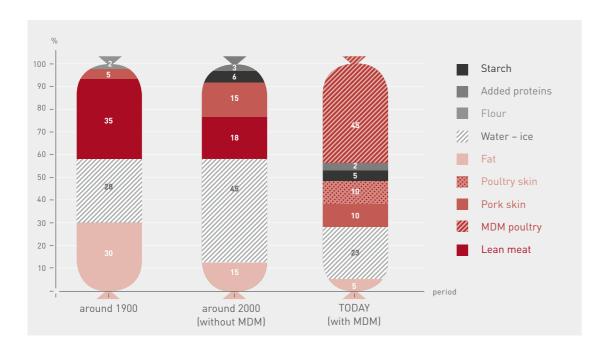


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MEAT-TEXTURIZING PRODUCTS AT THEIR BEST

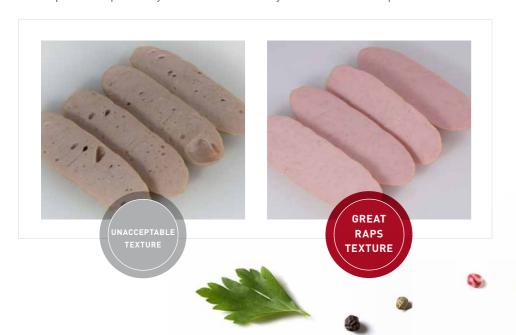
TIMES ARE CHANGING

Over the course of time manufacturing processes as well as the use of ingredients has changed – as have **quality expectations.** RAPS closely follows the changing and newly emerging requirements and develops products to meet the needs of the market: **price-sensitive** and **quality orientated.**



PRICE-PERFORMANCE IS THE KEY

Whilst the market is abound with pricey functional products, many of them are of low quality leading to poor texture, uneven binding of fine and coarse ingredients and air bubbles. You can rest assured that RAPS products provide you with the texture your consumers expect.



RECIPE OPTIMIZATION POSSIBILITIES

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- 1) Replacing high functional meat with lower functional raw material whilst maintaining the original texture/quality of the end product or even improving it.
- 2) Increasing the quantity of economy meat without loss of quality of the end product.
- 3) Improving the quality of the end product using low lesser quality meat.
- 4) Combining any of the above of 1), 2) and 3) to allow variable dosaging.

COST COMPARISONS VIENNA/FRANKFURTER & LYONER - PORK

	WITHOUT RAPS TEXTURIZER			WITH RAPS TEXTURIZER			
MATERIAL*	KG	PRICE/KG IN €	TOTAL IN €	KG	PRICE/KG IN €	TOTAL IN €	
Baader Meat	55,0	0,95	52,25	-	-	-	
MDM	-	-	-	54,0	0,45	24,30	
S 8	17,0	1,90	32,30	17,0	1,90	32,30	
Water	28,0	0,00	0,00	28,0	0,00	0,00	
Spice	1,2	7,00	8,40	1,2	7,00	8,40	
Native pot. Starch	2,0	0,50	1,00	2,0	0,50	1,00	
Nitrite salt	1,8	0,20	0,36	1,8	0,20	0,36	
STRONGTEX E 10	-	-	-	1,0	7,30	7,30	
TOTAL	105,0		94,31	105,0		73,66	
1 KG OF BATTER			0,90			0,70	



Texture of cold & warm sausages with MDM and STRONGTEX is better in comparison to sausages with BDR.

Using Baader Meat (BDR) makes the sausage very light in colour. The knack of sausages with STRONGTEX is significantly better.

COST COMPARISONS VIENNA/FRANKFURTER & LYONER - CHICKEN

	WITHOUT RAPS TEXTURIZER			WITH RAPS TEXTURIZER			
MATERIAL*	KG	PRICE/KG IN €	TOTAL IN €	KG	PRICE/KG IN €	TOTAL IN €	
Baader Meat	45,0	0,90	40,50	9,0	0,90	8,10	
MDM	10,0	0,50	5,00	45,0	0,50	22,50	
Chicken Skin	20,0	0,45	9,00	20,0	0,45	9,00	
Water	22,0	0,00	0,00	22,0	0,00	0,00	
Spice	1,5	7,00	10,50	1,5	7,00	10,50	
Native pot. Starch	3,0	0,50	1,50	3,0	0,50	1,50	
Nitrite salt	1,8	0,20	0,36	1,8	0,20	0,36	
STRONGTEX E 10	-	-	-	1,0	7,30	7,30	
TOTAL	103,30		66,86	103,30		59,26	
1 KG OF BATTER			0,65			0,57	



Texture of cold & warm sausages with STRONGTEX is significantly better in comparison to sausages without STRONGTEX.

Using Baader Meat (BDR) makes the sausage very light in colour. The knack of sausages with STRONGTEX is significantly better.

* Average European purchasing-price as per 01/18

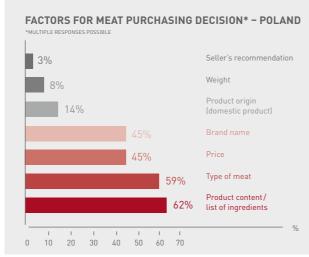
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MARKET OBSERVATIONS

RAPS conducted market research, focussing on functional products for Vienna/Frankfurter and boiled sausages, in order to provide the right meat products. Focus was put on the Eastern European market as it characterizes best the different country-specific development-levels in low price point-meat products. The market research results concerning customer behaviour are at the same time very good comparable for other regions such as Africa or Middle East & Asia where economical formulations are needed.





Source: SVP market research 2017

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GENERAL BUYING HABITS

Consumers' behaviour when buying meat products is **more of a routine than a conscious and thoughtful decision.** Hence, buyers of meat products, are usually guided by habits acquired from the family during childhood, and less often based on the actual knowledge of particular products.



Quality indicators are as important as the ingredients list, sensorial feelings but also trust in the advice from friends and acquaintances and **other quality-indicators** such as durability, sustainable and healthy production, packaging and place of manufacture and the brand itself. Consumers are basing their purchasing decisions on both aspects: what's on the inside as well as the external look.



In Eastern Europe, consumption of meat products is very high. Due to the economic situation of the majority of the population, the purchase-price level of meat is low. Hence, consumers have long accepted poorer quality standards.



Consumers in these low price point markets are **increasingly more concerned** with quality today.

As the **income level** in the countries **improves**, the demand for higher quality products grows and the **difference** between Eastern Europe and Western Europe purchasing drivers **becomes less**.

CONCLUSION

The sausage market is characterized by a rather narrow specialization by product groups, and each group has its own target audience and specifics of development.

- **TREND 1:** Rising demand for the low cost varieties due to the increasing prices of sausages. For LOW INCOME majority.
- **TREND 2:** Fresh, Natural & Pure. For WEALTHY minority. Preferences are nearly the same as in Western European High Price Point Countries. More and more consumers are interested in the ingredients, high content of meat and low content of additives. Health awareness increases.
- **TREND 3:** Due to social media, advertising and globalization, the demand for TRUSTED low price products at better quality rises. Consumer needs are changing and quality awareness increases.

CONSUMER EXPECTATIONS FOR EMULSIFIED BOILED SAUSAGES

TEXTURE

- · Uniform and consistent structure and surface, never crumbly
- · Natural meat-structure from adequate fibrosity
- · Smooth surface
- · Good bite, but no need for audible "knack" when bended
- Firm enough to be easily sliced
- Emulsified sausage/hotdog has to be springy and flexible, but still with fibrous texture

IIIICINES

- Juicy but never watery or leaking (i.e. no visible water spots/traces on sausage or in packaging)
- · No slippery haptic perception
- · Never dry and crumbly but always pleasantly sleek

COLOUR

- · Very similar to the true colour of meat (or at least as natural meat-like as possible)
- · Bright, but not too light and never grey
- · No intense colours, but natural, slightly pink (not artificially pink)
- · Uniform colour consistent in whole sausage



ALL THESE REQUIREMENTS LISTED ABOVE ARE MET BY THE NEW RAPS TEXTURIZING PRODUCTS. CONVINCE YOURSELF!

Source: SVP market research 2017

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RAPS BENEFITS



The price-performance of our texturizers can be measured by how well the end product meets consumer needs in terms of the **Sensorial Attributes**, **Functional Attributes** and of course the **Economical Attributes**. Meeting all these requirements makes us best in class.



MANUFACTURING BENEFITS

IMPROVES

consistency and hardness sliceability

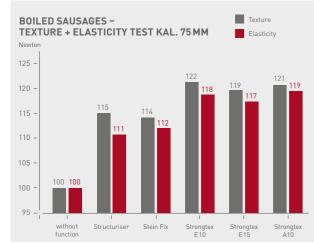
eating qualities (juiciness or flavor)

REDUCES

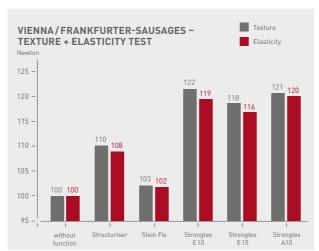
purge (drip loss, freeze-thaw loss, cooking loss, and reheating loss) fat content slicing loss price of end product

OUR TEXTURIZERS ...

- are suitable for high, middle and low raw material qualities
- improve economic efficiency (quality, profitability, sales-volume)
- are easy to use in manufacturing process
- work with all types of meat (beef, pork, poultry etc.)
- packaged in bags of 1 kg, 5 kg,
 10 kg bags and other depending on your requirements



Source: RAPS internal test with texture analyzer appliance



Source: RAPS internal test with texture analyzer appliance

PRODUCT FEATURES

		TEXTURIZERS
GRADE OF FUNCTIONALITY	High functionality in terms of yield	✓
	High functionality in terms of water-binding	✓
	Optimal sliceability	✓
NUMBER OF E-NUMBERS	3 E-Numbers maximum ²	✓
	No E 621 (Monosodium glutamate)	✓
	No E 120 (Carmine)	✓
	No E 250 (Nitrite)	✓
DOSAGE	Possibility of variable dosaging	✓
SHELF LIFE OF END-PRODUCT	Shelf life stability of end-product	✓
	Expiry date longer as a few days	depending on meat quality – no shelf life extender included
	Expiry date not too long	✓
STABLE PRODUCTS	Warm products are very stable after heating / no loss of water $^{\rm 1}$	✓
	No shrinking of end product / texture remains stable during cooling down process (same texture at all temperatures) ¹	✓
LOW COST	Possibility to increase quantity of economy meat without loss in quality	✓
	Possibility to replace high quality meat with cheaper raw material and keep original texture of end product at the same time	✓
IMPROVED PROFITABILITY	Reduced production time (e.g. reduced time for cutter-process) ¹	✓
OF PRODUCTION	Functional emulsions possible ³	✓
	Different emulsions possible to stabilize manufacturing-process ¹	✓
	Easy to use in manufacturing-process	✓
	Shelf life of functional product	✓
	Low complexity to change production process	✓
	Versatile applications / sausage-recipes (universal usage)	✓
	Suitable for all kinds of raw material qualities	✓
	Works with all types of meat (beef, pork, poultry etc.)	✓
CONVENIENCE & SAFTY	Available as compound	✓
FOR MANUFACTURER	Stability of manufacturing quality despite different meat qualities	✓
IMAGE & TRUST	Trusted high quality supplier	✓
INGREDIENTS	No allergens subject to declaration ⁴	✓
	No soy	✓
TYPE OF MEAT	Suitable for HALAL ¹	✓

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RAPS

st E-Numbers subject to declaration

PRODUCT OVERVIEW



ITEM CODE	PRODUCT NAME	INGREDIENTS	E-NO*	DOSAGE	KEY APPLICATIONS	SHELF LIFE	KEY FEATURES
1708032	STRUCTURIZER	E 450 Diphosphates E 401 Sodium alginate E 516 Calcium sulphate Maltodextrin Enzyme: transglutaminase	3	10 g/kg of batter	★★□ Cold Cuts (Boiled Sausages) ★□ Wiener / Frankfurter	12 months	 very good texture of warmed and cold sausages, optimal bite very good colour variable dosing possible no shrinking / texture remains stable
1707761	STEIN FIX	E 450 Diphosphates E 401 Sodium alginate E 516 Calcium sulphate E 407a Processed eucheuma seaweeds Rice flour Dry blood plasma (beef)	4	20 g/kg of batter	★★□ Cold Cuts (Boiled Sausages)	18 months	 very good texture of cold sausages, optimal bite very good sliceability natural meat structure
1708718	STRONGTEX E 10	E 516 Calcium sulphate E 410 Locust bean gum E 415 Xanthan gum Egg white powder (ALG)	3	10 g/kg of batter	*** Wiener / Frankfurter *** Cloid Cuts (Boiled Sausages)	18 months	 excellent texture of warmed and cold sausages, optimal bite very natural meat structure functional emulsions possible no loss of water after heating
1708717	STRONGTEX E 15	E 516 Calcium sulphate E 410 Locust bean gum E 415 Xanthan gum Egg white powder (ALG) Rice flour Dextrose	3	15 g/kg of batter	* * * [Wiener / Frankfurter * * [Gold Cuts (Boiled Sausages)	18 months	 excellent texture of warmed and cold sausages, optimal bite very natural meat structure functional emulsions possible no loss of water after heating
1092105	STRONGTEX A 10	E 450 Diphosphates E 401 Sodium alginate E 516 Calcium sulphate E 327 Calcium lactate Enzyme: transglutaminase Bamboo fibre Egg white protein powder (ALG) Maltrodextrin	4	10 g/kg of batter	* ★ ★ □ Wiener / Frankfurter * ★ ★ □ Gold Cuts (Boiled Sausages)	24 months	excellent texture of warmed and cold sausages, optimal bite very natural meat structure no shrinking / texture remains stable no loss of water after heating

WE LOOK FORWARD TO YOUR INQUIRY

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For more info visit: www.matesfood.com

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