



Herbacel[®] - AQ[®] Plus Citrus

The functional and
highly water-binding citrus fibre

Let's make
food better!



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Often, it's the simplest ideas that spark a change. The use of healthy dietary fibres to enrich foods and the drive to be more careful with food resources were two such ideas – and these concepts are now more relevant than ever before in the food industry. Fibre-rich and highly functional fruit fibres satisfy these requirements and can be used to sustainably increase the value of your products.

Herbacel - AQ Plus Citrus is a citrus fibre which is produced from freshly harvested citrus fruits which are gently dried after extracting the juice. The fibres are manufactured using a special production process and convince by neutral sensory properties and a neutral visual appearance, combined with exceptional functionality. With a water-binding capacity of around 25 g/g (Fig. 1), even small dosages can have a great effect.

Thanks to its functional and emulsifying properties, citrus fibre – which is free from E-numbers – can replace conventional thickening agents, emulsifiers and stabilisers – making it easy for you to produce clean-label products or shorten your ingredients lists.

Herbacel® - AQ® Plus Citrus

- 100 % citrus fibre
- very high water-binding capacity (25 g/g)
- sensory neutral powder
- excellent cold-swelling properties
- replaces thickening agents, emulsifiers and stabilisers
- easy to use
- no „aroma masking“
- vegan/vegetarian
- gluten-free
- kosher/halal
- declaration: „Citrus fibre“ (free from E-numbers)

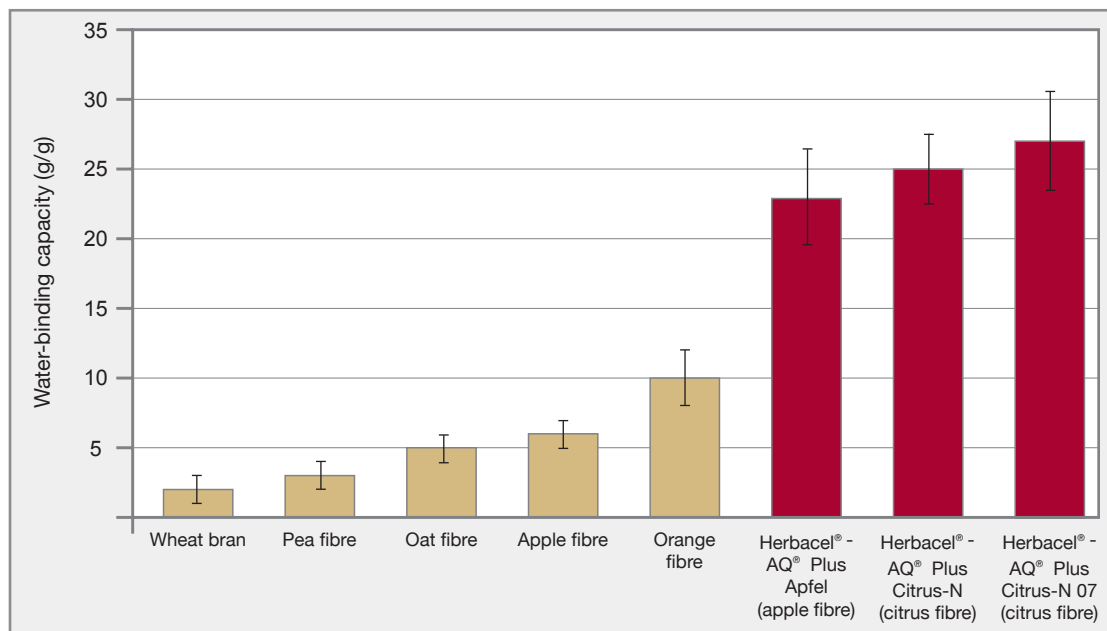
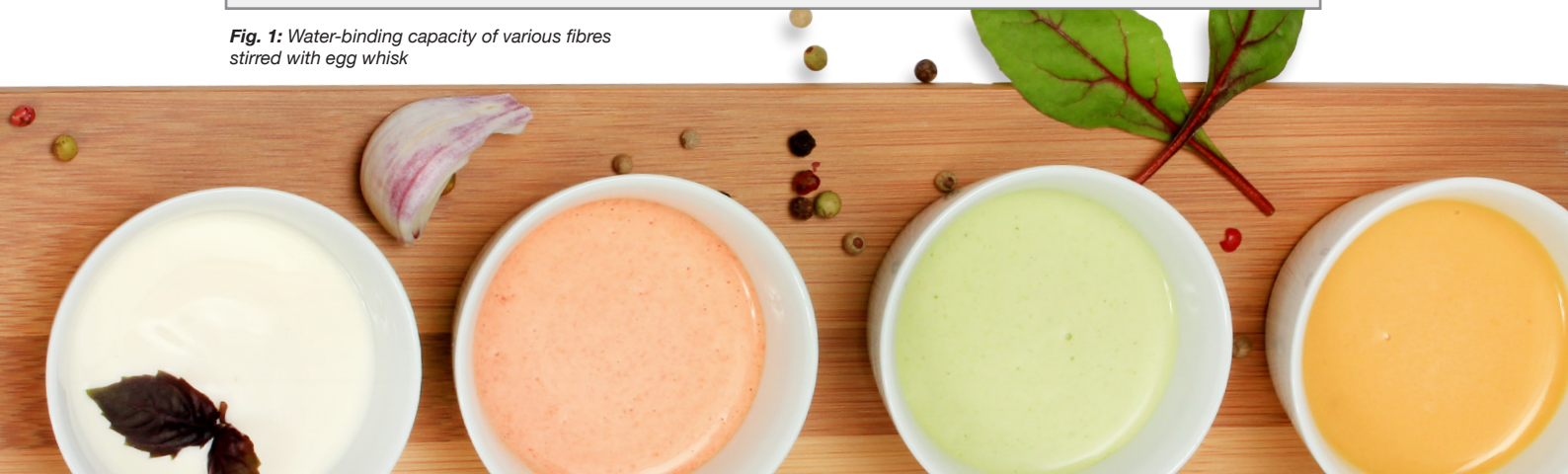


Fig. 1: Water-binding capacity of various fibres stirred with egg whisk



Citrus fibre can be used to create convenient textures suitable for a range of products, including high-quality as well as reduced-calorie foods – so you can easily reduce fat content while retaining typical product characteristics. Thanks to its high water-binding and emulsifying capacity, the product can be used in a diverse range of foods (see table on page 4).

The application of mechanical energy further increases the water-binding capacity of **Herbacel - AQ Plus Citrus** (Fig. 2).

In addition to the benefits of the high functionality of citrus fibres, their high dietary fibre content (approx. 90 %) means that they also have a positive effect on the nutritional value of your product. **Herbacel - AQ Plus Citrus** can help you create a nutritional and healthy product.

Herbacel - AQ Plus Citrus is a citrus fibre that meets your requirements as a manufacturer and the high standards of your consumers. The product is free from E-numbers and high in fibre, which is viewed positively by your customers – and brings a multitude of technical benefits to optimise your product.

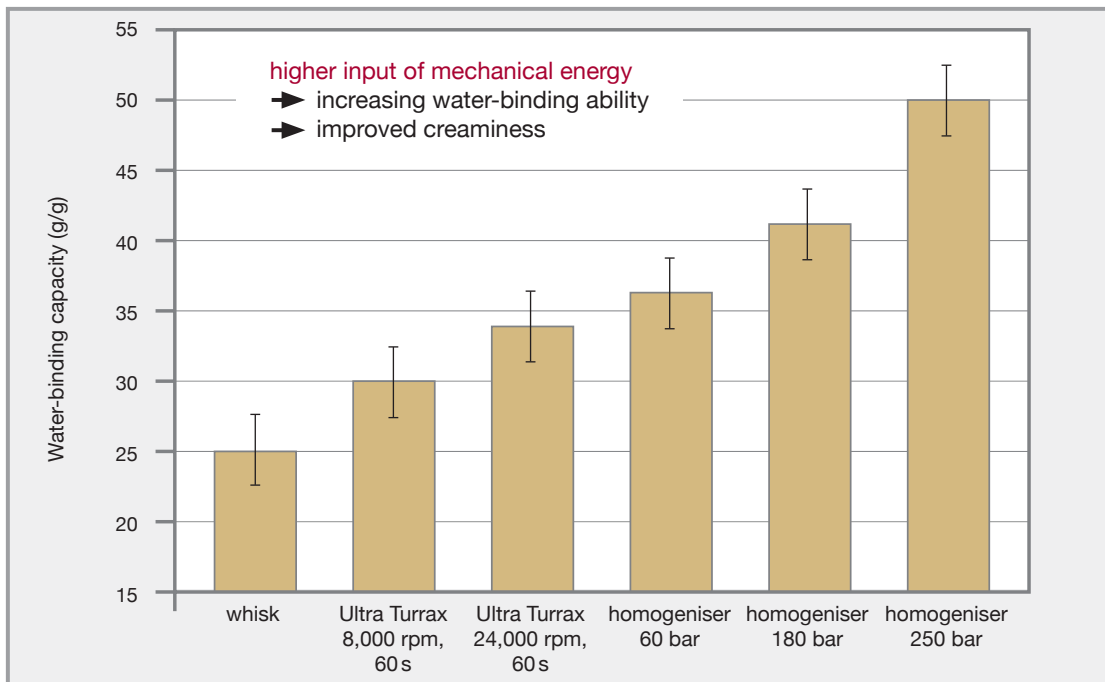


Fig. 2: Impact of mechanical energy input on Herbacel® - AQ® Plus Citrus-N



Tab. 1: Application spectrum for Herbacel® - AQ® Plus Citrus

Field	Application	Function
Meat and sausage products	Boiled sausage, raw sausage, burger patties, mince, coated meat, deep-fried products, cooked sausage, cooked cured meats, injected products	• improves texture • improves firmness • delays brine loss • improves succulence • faster raw sausage ripening • salt reduction • phosphate reduction • fat reduction • replaces emulsifiers/stabilisers/thickening agents
Fish products	Convenience products	• improves texture • delays brine loss • improves succulence
Delicatessen/Savoury	Sauces, dressings, creams, salad creams, mayonnaise, ketchup, spreads	• stabilises emulsions • Replaces emulsifiers/stabilisers/thickening agents • egg-free emulsions possible • improves mouthfeel • high storage stability without synaeresis • shear viscous properties • fat reduction • calorie reduction
Dairy products	Yoghurts, yoghurt drinks, milk drinks, cheese products, cream cheese products	• prevents synaeresis • increases creaminess • improves mouthfeel • fat reduction • increases viscosity • replaces emulsifiers/stabilisers/thickening agents
Drinks	Juice-based drinks, near-water drinks, fibre and diet drinks	• stabilisation and texturisation • improves mouthfeel • no aroma masking • fibre-enrichment • sugar reduction • calorie reduction • increases viscosity
Ice cream	Ice cream, sorbet	• improves melting properties • improves creaminess • reduces crystallisation • fat reduction • fibre-enrichment • replaces emulsifiers/stabilisers/thickening agents
Baked goods	Rye bread, mixed bread, wholemeal bread, wheat bread, bread rolls	• optimises machine processing • reduces dough stickiness • increases dough yield • improves crumb properties • improves fresh keeping • fibre-enrichment
Gluten-free baked goods	Bread, bread rolls, pastries	• improves processing properties • improves freshness • fibre-enrichment • increases viscosity
Pro-health products	Instant drinks, soups etc.	• meal replacement • improves mouthfeel • stabilisation and texturisation • increases satiation effect • calorie reduction • fibre-enrichment
Fruit preparations, ready-made products	Fruit preparations, purees, fruit purees, vegetable preparations, fillings	• stabilisation and texturisation • increases stability when baked • reduces synaeresis • increases viscosity • no aroma masking
Freezer products	Toppings, menu components, baking stable preparations	• improves freeze/thaw stability • reduces crystallisation • calorie reduction

