# Belgian Malts that Make Your Beer So Special

#### THE RICE HUSK

The rice husks are the external hard protecting coverings of grains of rice. The husk protects the seed during the growing season, since it is formed from hard materials, including opaline silica and lignin. This product is obtained through a process called "dehulling", during this process, the hulls are removed from the raw rice grain to reveal whole brown rice, which may then sometimes be milled further to remove the bran layer, resulting in white rice.

The rice husk undergoes a further processing: the steam-sterilization.

The sterilization process occurs when the rice husk is still an inte-gral part of the rice grain. This processing enables the rice mills to obtain a particular kind of rice called "Parboiled" resistant to longer cooking times and with greater preservation capabilities. The rough rice is soaked in large tanks of hot water, then undergoes high temperature steam (130 °C approx.) vacuum treatment and finally is rapidly dried. In this final and only stage of the cooking process the rice husk is sterilized without any pesticides or weed killers which may have been present before harvesting and is ready for the final process of separation from the rice grain, dedusting and packaging.

### **GMO FREE**

All the Italian rice, is completely GMO – free, this is because there is a national law and an European legislation (EU Directive 2015/412) prohibiting this cultivation.

Is a precious and useful aid for the filtration of beer wort, rennet and all food liquids in general.

The rice husk is obtained exclusively from Italian GMO – free rice and allergens free.

**Treatment:** sterilization by vapor cooking at 130° C

**Fields of use:** filtration of alimentary liquids in general (wort, rennet, must, juice extraction etc.)

Store: Is recommended to store the product, possibly in a covered area, away from heat and in a dry and cold

place

### **PACKAGING**

All the products are packaged into 110 micron low density polyethylene transparent bags (LDPE or PE-LD), heat-sealed and micropore to ensure a good level of ventilation. We recommend to store our packaging indoor, away from radiant heat (sun exposure) and in dry and cold place.

CODE	MATERIAL	APPLICATIONS  Clear softdrinks and beverage bottles, food packaging				
OR OR PETE	Polyethylene terephalate					
ADPE OR PE-HD	High density polyethylene	Bottles (especially for food products, detergent and cosmetics), Industrial wrapping and film, sheets, plastic bags				
OR OR	Polyvynil Chloride	Bottles, packaging film, credit cards, water containers, water pipes				
OR PE-LD	Low density polyethylene	Cling film, plastic bags, flexible containers and food wrap				
ష్ణ	Polypropylene	Packaging such as yoghurt and margarine pots, sweet and snack wrappers, medical packaging, milk and beer crates, shampoo bottles				
ه	Polystyrene	Disposable hot or cold drink cups and plates, fast food clamshells, dairy product containers				
OTHER OR O	All other resins and multi-materials not otherwise defined	Other resins, complex composites and laminates				

	Polyethylene Terephthalate (PET)	High Density Polyethylene (HDPE)	Polyvinyl Chloride (PVC)	Low Density Polyethylene (LDPE)	Polypropylene (PP)	Polystyrene (PS)	Other Plastics
Properties	213 PETE	L23 HDPE	3	243 LDPE	<u>ده</u> که	<u></u>	OTHER
Clarity	Clear	Translucent	Clear	Translucent	Translucent	Clear	
Moisture Barrier	Fair to Good	Good to Excellent	Fair	Good	Good to Excellent	Poor to Fair	
Oxygen Barrier	Good	Poor	Good	Poor	Poor	Fair	
Max. Temperature	120F	145F	140F	120F	165F	150F	Basin by Tyte
Rigidity	Moderate to High	Moderate	Moderate to High	Low	Moderate to High	Moderate to High	Plastic ID Code "7" is for other
Resistance to Impact	Good to Excellent	Good to Excellent	Fair to Good	Excellent	Poor to Good	Poor to Good	plastics
Resistance to Heat	Poor to fair	Good	Poor to Fair	Fair	Good	Fair	
Resistance to Cold	Good	Excellent	Fair	Excellent	Poor to Fair	Poor	
Resistance to Sunlight	Good	Fair	Poor to Good	Fair	Fair	Poor to Fair	

## **COMPOSITION TABLE OF RICE HUSKS**

Nutrient (dry basis)	IR29	IR32
Crude fibre (%)	36.0	38.3
Neutral detergent fibre (NDF) (%)	84.3	83.9
Acid detergent fibre (ADF) (%)	78.4	80.5
Hemicellulose (%)	5.9	3.4
Cellulose (%)	34.1	37.0
Cutin (%)	6.7	<b>5.</b> 7
Permanganate lignin (%)	11.7	13.3
Insoluble silica (%)	25.9	24.5
Energy content (j/g)	12.9	13.1
Crude protein (% N x 6.25)	1.9	1.8
Lysine (g/16 g N)	4.4	3.9
Proline (g/16 g N)	12.2	10.9