

Scope of supply

Aspera

Aspera products: malted grain based

- ▼ Roasted Malt Beers
- ▼ Malt Extracts
- ▼ Organic Malt Extract
- ▼ Coloured Malt Extract
- ▼ Caramel Malt Extract
- ▼ Wheat Malt Extract
- ▼ Malt Extract Powders
- ▼ Coloured Malt Extract Powder
- ▼ Beer Concentrates
- ▼ Malta Concentrates

Suga

Suga products: sugar and/or starch-based

- ▼ Brewing Colourant
- ▼ Baking Caramel
- ▼ Vinegar Caramel
- ▼ Spirit Caramel
- ▼ Caramel Sugar Syrup

- ▼ Brewing Syrup light
- ▼ Brewing Syrup dark
- ▼ Caramelised Sugar Syrups

- ▼ Sucrose Syrup
- ▼ Invert Sugar Syrups
- ▼ Glucose Syrups
- ▼ Riesogluose
- ▼ Lemonade Sugars
- ▼ Organic-Sugar, liquid and crystalline
- ▼ Sugar Blends, liquid/liquid,
liquid/crystalline
- ▼ Fructose, liquid and crystalline
- ▼ Dextrose, liquid and crystalline
- ▼ Sorbit, liquid and crystalline
- ▼ Citric Acid, liquid and crystalline



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Roasted Malt Beers 1/3

Aspera Roasted Malt Beers are brewed according to the German Purity Law of 1516, and contain only high quality malted barley, hops, bottom-fermenting yeast and brewing water. In accordance with the German purity law Aspera Roasted Malt Beers can be added to all types of beers without having to be declared on the ingredients list.

In order to meet the demands of the many different application needs we can offer eight different types of Aspera Roasted Malt Beers, which are used for flavouring and colouring:

Product	Addition	Dosage	Characteristics
Aspera N	brew house	approx. 15 g/hl and EBC	unfiltered, typical taste of dark beers
Aspera A/B	brew house to filtration	approx. 13 g/hl and EBC	mild character, foam neutral
Aspera A/C	brew house	approx. 15 g/hl and EBC	full-bodied, caramel malt aroma
Aspera A/E	brew house to filtration	approx. 13 g/hl and EBC	bright, typical taste of dark beers
Aspera A/M	brew house to filtration	approx. 13 g/hl and EBC	malty flavour
Aspera A/M11	brew house to filtration	approx. 11g/hl and EBC	mild character, high colour intensity
Aspera A/R7	brew house to filtration	approx. 20g/hl and EBC	intense ruby colour, caramel malt flavour
Aspera A/R	brew house	approx. 70 g/hl and EBC	deep red hue, well balanced caramel taste

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Roasted Malt Beers 2/3

Production process

For the production of our roasted malt beers we use a mixture of pale, caramel and roasted malts, specifically blended for the particular beer quality. After an elaborate mashing procedure with temperatures corresponding to the grist, the mash is lautered through a lauter tun or a mash filter. Following the wort boiling and a minimal hopping, the wort is cooled. Due to the low fermentable extract, the fermentation with bottom fermenting yeast is completed within approximately 24 hours. In the next step the beer is filtered with Diatomaceous Earth and in order to reduce bitterness and the burnt flavour with activated charcoal. Afterwards, the roasted malt beer is continuously and carefully concentrated in a vacuum evaporator under temperatures of 50 to 60°C.

The batches are then homogenized in special boiling vessels. Extract variations may occur since the products are always adjusted to the pre set colouring density. With our state-of-the-art packing equipment, the beer is then hot filled into plastic containers, drums or tank trucks.

Analytical data of Aspera Roasted Malt Beers

Product	Colour in EBC	Extract in % vol	pH	Haze in EBC
Aspera N	9,500 EBC	approx. 45 %	3.5 – 4.5	
Aspera A/B	9,500 EBC	approx. 45 %	3.5 – 4.5	< 1,0
Aspera A/C	9,500 EBC	approx. 45 %	3.5 – 4.5	
Aspera A/E	9,500 EBC	approx. 45 %	3.5 – 4.5	< 1,0
Aspera A/M	9,500 EBC	approx. 45 %	3.5 – 4.5	< 1,0
Aspera A/M11	11,000 EBC	approx. 50 %	3.5 – 4.5	< 1,0
Aspera A/R7	7,000 EBC	approx. 45%	3.5 – 4.5	
Aspera A/R	1,800 EBC	approx. 45 %	3.5 – 4.5	

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Roasted Malt Beers 3/3

Reasons for using Aspera Roasted Malt Beers

The reasons for the usage of roasted malt beers are as various as the different types themselves.

The easy handling enables the brewer to produce new speciality beers or smaller batch sizes faster and much more convenient without using any additional silo capacity. Furthermore the cleaning of the malt conveyors after using dark malts is avoided and a carryover into light beers is impossible. Another advantage is the colour consistency which guarantees regular brewing processes and colour adjustment of the beer at every stage. Especially larger breweries appreciate roasted malt beers as they have the opportunity to work with normal production capacities in the brew house as well as fermentation and storage cellars without abandoning profitable speciality beers in smaller batch sizes. Some breweries are now producing a standard base beer until filtration where the final beer style will be determined. Our experiences show that this trend is getting more and more popular and ease the process of creating new styles of beer.

In modern breweries roasted malt beers are also used to adjust the colour of light beers by only 1 to 2 EBC. This step is necessary since some state-of-the-art brew houses and the most advanced technology are sometimes causing atypically light coloured beers. These colours are not only different from the desired beer styles but are also not accepted by the consumer.

The use of Aspera Roasted Malt Beers is not limited to large or industrial breweries. Craft brewers can benefit from our products as well. While the use of specialty malts is very common in the craft brewing industry, capacity and efficiency can be increased through the use of Aspera products. Craft brewers have become extremely quality-driven and the consumer demands consistent high quality, both in flavour and visual appearance of a craft brewed beer. Slight colour adjustments are easy and exact when using Aspera Roasted Malt Beers.

By using our specialty Roasted Malt Beers such as A/R and A/R7, brewers can not only adjust the colour or hue of their beers, but can also impart a distinct and pleasant aromatic caramel note as well.

Packaging Sizes and Handling

Depending on brew house or dosing requirements, Aspera Roasted Malt Beers can be supplied in various quantities, from 5 kg plastic canisters up to 1,200 kg containers, to tanker loads.

The packing according to customer's individual batch sizes avoids the microbiological risks occurring through the storage of opened canisters. As long as the packaging remains unopened and the merchandise is stored between 10° and 30°C we can guarantee a shelf-life of 12 months. In case an opened container is not emptied immediately, it should be equipped with a sterile air filter.

Aspera

Malt Extracts

Suga

For the production of Aspera Malt Extracts only selected malts and brewing water are used. They do not contain any additives.

Aspera Caramel Malt Extract is a viscous syrup which is, due to its gentle treatment during processing, highly recommended for brewing full-bodied beers with a malty-type character. It also adds a pleasant caramel flavour to other foodstuffs.

Aspera Coloured Malt Extract is a highly liquid, easily miscible extract for use in soft drinks, wine, bread and pastries, coffee substitutes, desserts, ice-creams, pharmaceuticals, sauces, and similar products.

Aspera Malt Extract 80% is a viscous, golden-yellow syrup with a full, malty taste, which can be supplied in light and in dark colour. On request, Aspera Malt Extract can be enriched with vitamins.

Aspera Wheat Malt Extract is a viscous, golden-yellow syrup, with a full taste of wheat malt. The majority of clients for Aspera Wheat Malt Extract can be found among breweries and bakeries.

Aspera Malt Extract and **Coloured Malt Extract Powders** are produced from Aspera Malt Extracts, by means of spray drying. The range of application covers the whole beverage and food industry. On request, Aspera Malt Extract Powders can also be enriched with vitamins.

Analytical data of Aspera Malt Extracts

Product	Colour in EBC	Extract in % ds	pH-Value
Aspera Malt Extract 80 % light	approx. 10 EBC	approx. 80 %	5.0 – 6.0
Aspera Malt Extrakt 80 % dark	approx. 50 EBC	approx. 80 %	5.0 – 6.0
Aspera Wheat Malt Extract	approx. 10 EBC	approx. 80 %	5.0 – 6.0
Aspera Caramel Malt Extract	approx. 200 EBC	approx. 55 %	4.0 – 5.0
Aspera Coloured Malt Extract	approx. 10,000 EBC	approx. 50 %	4.0 – 5.0
Aspera Malt Extract Powder	10, 20, 50, 125, 400, 600 EBC	approx. 97 %	5.0 – 6.0
Aspera Coloured Malt Extract Powder	approx. 22,000 EBC	approx. 97 %	4.0 – 5.0

Aspera Beer Concentrate

Suga

Product Description

Aspera Beer Concentrate is made from water, malted barley and hops. The concentrate is suitable for the production of beers, non-alcoholic beers or malt-based soft drinks.

Aspera Beer Concentrate is the ideal alternative when installation of a complete brew house would be impractical, due to the expenses involved.

Specification

Aspera Beer Concentrate can be supplied according to the following analysis:

Extract	approx. 80 %
Colour	8 – 100 EBC in the final drink
Bitterness	5 – 30 BU in the final drink
pH (10% solution)	5.0 - 6.0
Alcohol	0.00 %

Application

During production, warm water and Aspera Beer Concentrate are mixed in a tank, at a ratio of 15 parts water to 1 part concentrate. In this dilution, the original gravity is approximately 5 %/weight which corresponds to approx. 14 kcal per 100 ml. Higher original gravities are of course possible, and can be determined according to individual requirements. Before bottling or kegging, the liquid is cooled, filtered, and carbonated. To prolongue the shelf-life of the finished product, we recommend re-heating for a short period or pasteurisation of the product.

Through blending with regular beers the beer concentrate can furthermore be used for the production of low alcohol beers.

Packing

- ▼ Plastic containers from 25 kg to 40 kg
- ▼ Non-returnable drums of 280 kg
- ▼ Non-returnable containers of 1,300 kg

Aspera

Malt Beer Concentrate

Suga

Product Description

The ingredients of Aspera Malt Beer Concentrate are water, caramelised glucose, malted barley and hops. The concentrate is especially suitable for the production of alcohol-free and low-alcohol malt beverages.

Aspera Malt Beer Concentrate is heat, cold and protein stable, and has a typical malt/caramel aroma and flavour. It is simple to use and can be easily dosed. Upon request it can be enriched with vitamins or aromatised (for example lemon or peach flavour).

Specification

Aspera Beer Concentrate can be supplied according to the following analysis:

Extract	approx. 75 %
Colour	50 – 200 EBC in the final drink
Bitterness	5 – 20 BU in the final drink
pH (10% solution)	4.5 – 6.0
Alcohol	0.00 %

Application

To produce a malt beer, the concentrate is diluted with warm water until the desired original gravity is reached. The drink is then cooled and, if required, pre-fermented or fermented, filtered and carbonated, prior to bottling or kegging. In order to prolongue its shelf-life we highly recommend the pasteurisation of the product or hot filling.

Packing

- ▼ Plastic containers from 25 kg to 40 kg
- ▼ Non-returnable drums of 280 kg
- ▼ Non-returnable containers of 1,200 kg



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Suga Caramel Colours are brown food colourings, which are produced through heating of crystalline or liquid sugar under usage of special catalysts. Cane-, beet- or starch syrups are used as the raw material. After controlled boiling the catalysts are carefully dosed and the mixture is then heated further. During this process the temperature increases up to 160°C. The process is stopped after the desired color intensity is achieved. Finally, the caramel is cooled and by adding water or liquid sugar. The colour, pH and extract are adjusted as required. Suga Caramel Colours are free of turbidity, with a mellow, malt/caramel flavour. They are protein and alcohol stable, and free of iron or calcium.

The various types and their final functions are determined by the catalyst used:

	Group I Caustic caramels	Group II Sulphite caramels	Group III Ammonia caramels	Group IV Sulphite ammonia caramels
Catalyst	acids, caustics	sulphite caustic	ammonia	sulphite ammonia
Properties	alcoholstable	alcoholstable	beerstable	acidstable
Use	liquors, sweets, pastries, pharmaceuticals	spirits, liquors	beer, soups, pastries, sauces, canned food	cola-drinks, lemonade, vinegar-products
Colour	up to 20,000 EBC	up to 30,000 EBC	up to 40,000 EBC	up to 52,000 EBC
In the EU to be declared as : "Colour: ... "	E150 a and/or plain caramel	E150 b and/or sulphite caramel	E150 c and/or ammonia caramel	E150 d and/or sulphite ammonia caramel

When using Caramel Colours from different groups, care must be taken that they are not mixed, as this could lead to unwanted precipitations and turbidities.

All Suga Caramel Colours are manufactured in specially designed plants using the latest equipment. The process is continuously monitored by our Quality Assurance Department, to ensure that the quality of the product remains consistent.

Product Description

Suga Brewing Colourants are dark brown, viscous liquids, which can be used for the colouring of all bottom- and top-fermented dark beers, as well as for all kinds of malt drinks. All Suga Brewing Colourants comply with the EU-Regulation No. 231/2012 and should appear in the ingredients list as “E 150c” and/or „Ammonia Colourant“.

Specification

Suga Brewing Colourants can be supplied according to the following analysis:

	Colour in EBC	Extract in % ds	pH	Turbidity in EBC
Suga Brewing Colourant 38.000	38,000	ca. 70 %	ca. 4.0	< 1.0
Suga Brewing Colourant 36.000	36,000	ca. 68 %	ca. 4.0	< 1.0
Suga Brewing Colourant 60/30	30,000	ca. 60 %	ca. 4.0	< 1.0
Suga Brewing Colourant 55/30	30,000	ca. 55 %	ca. 4.0	< 1.0

Application

We recommend the addition of Suga Brewing Colourants in the brew house, towards the end of the wort boiling. However, if sufficiently pre-heated, Suga Brewing Colourant can also be easily dosed in the fermenting vessel, during storage or final filtration.

Packing

- ▶ Plastic containers from 5 kg to 40 kg
- ▶ Non-returnable drums of 280 kg
- ▶ Non-returnable containers of 1,300 kg
- ▶ Tanker loads up to 25,000 kg

Aspera

Suga Caramel Sugar Syrup

Product Description

Suga Caramel Sugar Syrup (burnt sugar) is a strongly-coloured, sugar-based syrup, obtained under application of controlled heat. It is used for flavouring and/or colouring, and can be used in a range of products, from alcoholic drinks to pastries, and even pharmaceuticals. Suga Caramel Sugar Syrup possesses a caramel-type sweet aroma and flavour, and is alcohol-stable up to an alcohol content of approx. 60 %.

In accordance with the EC Food Regulations, caramel is a food which has to be marked as „caramel“, „caramel sugar“ or „caramel syrup“.

Specification

Colour	16,000 EBC \pm 1,000 EBC
Extract	73 \pm 3 %
pH	3.0 \pm 0.5
Specific gravity	approx. 1.30
Viscosity at 20° C	approx. 12,000 mPa*s

Lieferform

- ▼ Plastic canisters from 5 to 40 kg
- ▼ Non-returnable drums of 280 kg
- ▼ Plastic containers of 1,300 kg
- ▼ Tanker loads up to 25,000 kg

Product Description

Suga Brewing Syrup is produced from glucose or beet sugar, and is available with various compositions of fructose and dextrose, as well as density and colour. Because of its caramel aroma and flavour, Suga Brewing Syrup gives a full-bodied flavour, with a rounded sweetness to malt beers and all types of malt drinks. Suga Brewing Syrup is heat, cold, alcohol and protein stable and is easy to use and to dose.

Specification

The product can be supplied in any concentration, within the following analysis parameters, according to customer requirements.

Extract	65 to 80 %
Colour	80 to 1,500 EBC
pH	4.0 ± 0.5
Turbidity	< 1.0 EBC

Application

To produce malt beer, Suga Brewing Syrup is poured into the conditioning/storage tank prior to addition of the pre-fermented and filtered beer. As a rule of thumb it can be said that 50 % of the final drink's original gravity comes from the brewing syrup, the other half is obtained from the malt. Once the blending process is completed, the beverage should be pasteurised and kegged.

Packing

- ▼ Plastic canisters from 5 to 40 kg
- ▼ Non-returnable drums of 280 kg
- ▼ Non returnable containers of 1,200 kg
- ▼ Tanker loads up to 25,000 kg

Suga Glucose Syrups are concentrated aqueous solutions, which are free from impurities. They are made of saccharides extracted from starch, and are suitable for nutritional purposes. The variety of Suga Glucose Syrups ranges from fructose containing syrups for the beverage industry to the standard glucose syrups giving consistency in bread, cakes and pastries or sweets.

Suga Fructose Syrups are produced through liquefaction of crystalline fructose and are available up to a dry substance of 80 % with a fructose content of maximum 99.5%.

Suga Invert Sugar Syrup is produced by dissolving sucrose, and its subsequent inversion. The syrup has a low ash content, adds little colour to the solution, is sterile and has a low viscosity. Therefore it is a suitable alternative to crystalline sugar. Suga Invert Sugar syrup is transparent, odourless and is neutral in flavour. It has a uniform quality, is free from impurities and does not foam.

Suga Lemonade Sugar is a mixture of Suga Invert Sugar Syrup and Riesoglucose. Various concentrations can be supplied, according to customer's requirements.

Riesoglucose is a purified, odourless, concentrated aqueous solution, which is produced from starch. It is mainly used in the production of non-alcoholic beverages. Under EEC Food Regulations Riesoglucose must be marked as "glucose –fructose-syrup" or "fructose-glucose-syrup".

Suga Sucrose Syrup 66.5% is made through liquefaction of refined sugar and is the basis for the production of inverted sugar syrup.

Suga Sugar Blends are produced on the basis of the above mentioned syrups and are adjusted in sugar spectrum and dry substance content to customer's requirements. These syrups with dry substances up to 83% may consist of five to six components whereas crystalline products with a content less than 0.1 % can be worked into the syrup homogeneously.