

ECLA**EUROPEAN CLASSIFICATION****C12C**

BREWING OF BEER (cleaning of raw materials [A23N](#); pitching and depitching machines, cellar tools [C12L](#); propagating yeasts [C12N1/14](#); non-beverage ethanolic fermentation [C12P7/06](#))

[N: **WARNING**

[C0309] Some of the groups [C12C3/00](#) to [C12C7/28](#) might be incomplete. See Warning after [C12C9/00](#).

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C12C1/00**Preparation of malt**

- [C12C1/02](#) . Pretreatment of grains, e.g. washing, steeping
- [C12C1/027](#) . Germinating [\[N0304\]](#)
- [C12C1/027B](#) . . [\[N: on single or multi-stage floors\]](#) [\[N0304\]](#)
- [C12C1/033](#) . . in boxes or drums [\[N0304\]](#)
- [C12C1/047](#) . . Influencing the germination by chemical or physical means [\[N0304\]](#)
- [C12C1/053](#) . . . by irradiation or electric [\[N: or wave energy\]](#) treatment [\[N0304\]](#)
- [C12C1/067](#) . Drying [\[N0309\]](#)
- [C12C1/073](#) . . Processes or apparatus specially adapted to save or recover energy [\[N0309\]](#)
- [C12C1/10](#) . . Drying on fixed supports
- [C12C1/12](#) . . Drying on moving supports
- [C12C1/125](#) . Continuous or semi-continuous processes for steeping, germinating or drying [\[N0309\]](#)
- [C12C1/13](#) . . with vertical transport of the grains [\[N0309\]](#)
- [C12C1/135](#) . . with horizontal transport of the grains [\[N0309\]](#)
- [C12C1/15](#) . Grain or malt turning, charging or discharging apparatus [\[N0309\]](#)
- [C12C1/16](#) . After-treatment of malt, e.g. malt cleaning, detachment of the germ
- [C12C1/18](#) . Preparation of malt extract or of special kinds of malt, e.g. caramel, black malt ([malt products for use as foodstuffs](#) [A23L](#)) [\[C0309\]](#)

C12C3/00**Treatment of hops [\[C0309\]](#)**

- [C12C3/02](#) . Drying
- [C12C3/04](#) . Conserving; Storing; Packing
- [C12C3/06](#) . . Powder or pellets from hops [\[N0309\]](#)
- [C12C3/08](#) . . Solvent extracts from hops [\[N0309\]](#)
- [C12C3/08B](#) . . . [\[N: Extraction of hops with beerwort\]](#) [\[N0309\]](#)
- [C12C3/10](#) . . . using carbon dioxide [\[N0309\]](#)

- C12C3/12
 - . Isomerised products from hops [N0309]
- C12C5/00**
 - Other raw materials for the preparation of beer**
- C12C5/00B
 - . [N: Brewing water]
- C12C5/00C
 - . [N: Enzymes] [N0309]
- C12C5/00C2
 - . . [N: Beta-glucanase or functionally equivalent enzymes] [N0309]
- C12C5/00D
 - . [N: Hop surrogates] [N0309]
- C12C5/02
 - . Additives for beer
- C12C5/02B
 - . . [N: enhancing the vitamin content]
- C12C5/02F
 - . . [N: Beer flavouring preparations] [N0309]
- C12C5/04
 - . . Colouring additives
- C12C7/00**
 - Preparation of wort (malt extract [C12C1/18](#))**
- C12C7/01
 - . Pretreatment of malt, e.g. malt grinding [N0309]
- C12C7/04
 - . Preparation or treatment of the mash [C0309]
- C12C7/04C
 - . . [N: Mixing malt with water] [N0309]
- C12C7/04F
 - . . [N: Cooling the mash ([C12C7/06D](#) takes precedence)] [N0309]
- C12C7/047
 - . . part of the mash being unmalted cereal mash [N0309]
- C12C7/053
 - . . part of the mash being non-cereal material [N0309]
- C12C7/06
 - . . Mashing apparatus
- C12C7/06B
 - . . . [N: with a horizontal stirrer shaft] [N0309]
- C12C7/06C
 - . . . [N: with a vertical stirrer shaft] [N0309]
- C12C7/06D
 - . . . [N: with cooling means] [N0309]
- C12C7/14
 - . Clarifying wort (Läuterung)
- C12C7/16
 - . . by straining
- C12C7/16B
 - . . . [N: in a tub with a perforated false bottom]
- C12C7/16C
 - . . . [N: with transport of the mash by or relative to a filtering surface]
- C12C7/165
 - . . . in mash filters [N0309]
- C12C7/17
 - . . . in lautertuns, [N: e.g. in a tub with perforated false bottom] [N0309]
- C12C7/175
 - . . by centrifuging [N0309]
- C12C7/20
 - . Boiling the beerwort ([brew kettles C12C13/02](#)) [N0309]
- C12C7/20B
 - . . [N: Boiling with hops] [N0309]
- C12C7/22
 - . . . Processes or apparatus specially adapted to save or recover energy [N0309]
- C12C7/24
 - . Clarifying beerwort between hop boiling and cooling [N0309]
- C12C7/26
 - . Cooling beerwort; Clarifying beerwort during or after the cooling [N0309]

- C12C7/28 . After-treatment, [N: e.g. sterilisation ([C12C11/00](#) takes precedence)] [N0309]
- C12C7/28B . . [N: Concentration or beerwort] [N0309]
- C12C7/28C . . [N: Drying beerwort] [N0309]
- C12C7/28D . . [N: Treating beerwort with hopextract ([C12C7/20B](#) takes precedence)] [N0309]

- C12C9/00** [N: IPC5] **Methods specially adapted for the making of beerwort** [C0802]

- [N: **Warning**
[N0309]From 1st August 2003 onwards, the IPC5-based groups [C12C9/00](#) to [C12C9/02B](#) are no longer used for classification of new documents. Patent documents classified in these groups are being continuously reclassified to the corresponding groups [C12C3/00](#) to [C12C7/00](#)
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- C12C9/02 . [N: IPC5] Beerwort treatment; Boiling with hops; Hop extraction
- C12C9/02B . . [N: Preparation of hop extracts (extraction with beerwort [C12C9/02](#)); Isomerisation of these extracts; Treatment of beerwort with these extracts; Surrogates of the hop]

- C12C11/00** **Fermentation processes for beer** (preparation of wine [C12G1/00](#))

- C12C11/00B . [N: Fermentation of beerwort] [N0309]
- C12C11/00B2 . . [N: Fermentation tanks therefor] [N0309]

- C12C11/02 . Pitching yeast

- C12C11/06 . Acidifying the wort [C0309]

- C12C11/07 . Continuous fermentation [N0309]
- C12C11/07B . . [N: Bioreactors for continuous fermentation] [N0309]

- C12C11/09 . Fermentation with immobilised yeast [N9711]

- C12C11/11 . Post fermentation treatments, e.g. carbonation, concentration ([C12H](#) takes precedence; containers with means specially adapted for effervescing potable liquids [B65D85/73](#)) [N0309]

- C12C12/00** **Processes specially adapted for making special kinds of beer** [N9811]

- C12C12/00B . [N: using special micro-organisms] [N0309]
- C12C12/00B2 . . [N: Genetically modified micro-organisms] [N0309]
- C12C12/00B4 . . [N: Yeasts (processes for seeding [C12C11/02](#))] [N0309]
- C12C12/00B6 . . [N: Lactic acid bacteria] [N0309]

- C12C12/02 . Beer with low calorie content ([C12C12/04](#) takes precedence) [N9811]

- C12C12/04 . Beer with low alcohol content [N: (removal of alcohol after fermentation [C12G3/08](#))] [N9811]

- C12C13/00** **Brewing devices, not covered by a single group of [C12C1/00](#) to [C12C12/04](#)** [C0309]

- C12C13/02 . Brew kettles [N: (C12C11/07B takes precedence)] [C0309]
- C12C13/02B . . [N: heated with steam] [N0309]
- C12C13/06 . . heated with fire
- C12C13/08 . . with internal heating elements [N0309]
- C12C13/10 . Home brew equipment [N9711]