

# Niskoalkoholowy Ale

- Gravity **7.8 BLG**
- ABV **3 %**
- IBU **40**
- SRM **6.4**
- Style **American Brown Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **20.7 liter(s)**

## Steps

- Temp **50 C**, Time **10 min**
- Temp **72 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16.5 liter(s)** of strike water to **53.8C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **60 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **16.6 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

| Type  | Name                  | Amount          | Yield  | EBC |
|-------|-----------------------|-----------------|--------|-----|
| Grain | Viking Pale Ale malt  | 2.5 kg (60.5%)  | 80 %   | 5   |
| Grain | Briess - Pilsen Malt  | 1.25 kg (30.2%) | 80.5 % | 2   |
| Grain | Karmelowy Jasny 30EBC | 0.333 kg (8.1%) | 75 %   | 30  |
| Grain | Czekoladowy           | 0.05 kg (1.2%)  | 60 %   | 788 |

## Hops

| Use for | Name       | Amount | Time   | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil    | Chinook    | 40 g   | 10 min | 13 %       |
| Boil    | Cascade PL | 40 g   | 10 min | 5.2 %      |
| Boil    | Citra      | 20 g   | 10 min | 12 %       |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale k-97 | Ale  | Dry  | 11.5 g | Fermentis  |

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|        |       |      |      |        |
|--------|-------|------|------|--------|
| Flavor | imbir | 10 g | Boil | 30 min |
|--------|-------|------|------|--------|