

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
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Flavor	imbir	10 g	Boil	30 min
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