

Przebudzenie wiosny

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **26**
- SRM **7.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **32 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **40 min**

Mash step by step

- Heat up **24 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **40 min** at **78C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4 kg (50%)	82 %	4
Grain	Viking Munich Malt	4 kg (50%)	78 %	18

Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Mosaic	30 g	15 min	10 %
Aroma (end of boil)	Citra	30 g	15 min	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis

Extras

Type	Name	Amount	Use for	Time
Water Agent	kwas mlekowy	2 g	Mash	60 min