

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **28**
- SRM **3.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **18 %/h**
- Boil size **24.4 liter(s)**

Mash information

- Mash efficiency **88 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **1 min**

Mash step by step

- Heat up **12 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **24.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.85 kg (96.3%)	80 %	5
Grain	Pszeniczny	0.15 kg (3.8%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	25 g	60 min	8.5 %
Boil	Lublin (Lubelski)	10 g	10 min	4.3 %
Aroma (end of boil)	Lublin (Lubelski)	40 g	1 min	4.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis