

Pale Ale NUMER 1

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **36**
- SRM **5.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **68 C**, Time **20 min**
- Temp **76 C**, Time **15 min**

Mash step by step

- Heat up **19.3 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **20 min** at **68C**
- Keep mash **15 min** at **76C**
- Sparge using **12.6 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (45.5%)	80 %	5
Grain	Pilzneński	2.5 kg (45.5%)	81 %	4
Grain	Karmelowy Jasny 30EBC	0.5 kg (9.1%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	20 g	50 min	6 %
Boil	Citra	30 g	20 min	12 %
Boil	Vanguard	10 g	10 min	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale