

PALE ALE 12*

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **43**
- SRM **4.9**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **22.2 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **16.2 liter(s)** of strike water to **76.9C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **22 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (66.7%)	80 %	5
Grain	Monachijski	0.75 kg (12.5%)	80 %	16
Grain	Karmelowy Jasny 30EBC	0.25 kg (4.2%)	75 %	30
Grain	BESTMALZ - Best Pilsen	1 kg (16.7%)	80.5 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Phoenix	35 g	70 min	11 %
Aroma (end of boil)	Progress	50 g	10 min	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	23 g	---

Extras

Type	Name	Amount	Use for	Time
Fining	whirlfloc T	1.25 g	Boil	10 min