

ŻLAPA_V4

- Gravity **7.8 BLG**
- ABV **3 %**
- IBU **39**
- SRM **4.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **31.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **73 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **14.4 liter(s)** of strike water to **79.6C**
- Add grains
- Keep mash **60 min** at **73C**
- Keep mash **10 min** at **76C**
- Sparge using **20.5 liter(s)** of **76C** water or to achieve **31.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale ale Malteurop	1 kg (27%)	80 %	8
Grain	Weyermann - żytni	1 kg (27%)	85 %	7
Grain	monachijski Typ I Viking Malt	1 kg (27%)	78 %	18
Grain	Słód Carahell (R)	0.3 kg (8.1%)	75 %	25
Grain	Płatki owsiane	0.2 kg (5.4%)	85 %	3
Grain	Biscuit Malt	0.1 kg (2.7%)	79 %	45
Sugar	cukier	0.1 kg (2.7%)	100 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Pacific Gem	15 g	45 min	13.9 %
Boil	Cascade	25 g	10 min	5.6 %
Boil	Citra	25 g	10 min	12.9 %
Whirlpool	Cascade	25 g	0 min	5.6 %
Whirlpool	Citra	25 g	0 min	12.9 %
Dry Hop	Cascade	30 g	4 day(s)	5.6 %
Dry Hop	Citra	30 g	4 day(s)	12.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
hothead	Ale	Liquid	200 ml	White Labs

Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc T	1 g	Boil	10 min