

ŻLAPA v2

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **41**
- SRM **5.3**
- 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 **8 %/h**
- Boil size **25.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13.7 liter(s)**
- Total mash volume **17.6 liter(s)**

Steps

- Temp **71 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **13.7 liter(s)** of strike water to **78.3C**
- Add grains
- Keep mash **60 min** at **71C**
- Keep mash **10 min** at **78C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **25.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale optima	1.5 kg (36.6%)	81.6 %	7
Grain	Żytmi	1 kg (24.4%)	85 %	8
Grain	monachijski Typ I Viking Malt	1 kg (24.4%)	78 %	18
Grain	Słód Carahell (R)	0.2 kg (4.9%)	75 %	25
Grain	Płatki owsiane	0.2 kg (4.9%)	85 %	3
Sugar	cukier	0.2 kg (4.9%)	100 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	20 g	60 min	9.5 %
Boil	Cascade	25 g	5 min	9.7 %
Boil	Chinook PL	25 g	5 min	8.6 %
Boil	Cascade PL	25 g	5 min	5.5 %
Boil	Citra	20 g	5 min	12 %
Whirlpool	Chinook PL	25 g	0 min	8.6 %
Whirlpool	Cascade PL	25 g	0 min	5.5 %
Whirlpool	Citra	25 g	0 min	12 %

Whirlpool	Cascade	25 g	0 min	9.7 %
Whirlpool	Amarillo	25 g	0 min	9.5 %
Dry Hop	Chinook PL	25 g	4 day(s)	8.6 %
Dry Hop	Cascade PL	25 g	4 day(s)	5.5 %
Dry Hop	Citra	30 g	4 day(s)	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
HotHead	Ale	Liquid	1000 ml	omega

Extras

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