

Klon Miłosław bezalkoholowy

- Gravity **6.1 BLG**
- ABV **2.3 %**
- IBU **24**
- SRM **2.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **33 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **39.6 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **20.4 liter(s)**

Steps

- Temp **72 C**, Time **60 min**

Mash step by step

- Heat up **17 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **72C**
- Sparge using **26 liter(s)** of **76C** water or to achieve **39.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1 kg (29.4%)	80 %	5.5
Grain	Viking Pilsner malt	1 kg (29.4%)	82 %	4
Grain	Viking Wheat Malt	1 kg (29.4%)	83 %	5
Grain	Rye, Flaked	0.4 kg (11.8%)	78.3 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	5 g	60 min	14.7 %
Boil	Citra	25 g	10 min	13.5 %
Boil	Amarillo	25 g	10 min	8.7 %
Whirlpool	Citra	25 g	0 min	13.5 %
Whirlpool	Amarillo	25 g	0 min	8.7 %
Dry Hop	Citra	50 g	4 day(s)	13.5 %
Dry Hop	Amarillo	50 g	4 day(s)	8.7 %

Yeasts

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

Extras

Type	Name	Amount	Use for	Time
Fining	whirflock	0.5 g	Boil	15 min
Flavor	skórka suszonej bergamotki	20 g	Boil	15 min