

Pale Ale IPA

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **54**
- SRM **17.5**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.6 liter(s)**
- Total mash volume **15.5 liter(s)**

Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **11.6 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **77C**
- Sparge using **8.7 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (64.6%)	80 %	5
Grain	Barley, Flaked	0.8 kg (20.7%)	70 %	4
Grain	Fawcett - Dark Crystal	0.16 kg (4.1%)	71 %	300
Grain	Karmelowy żytni Strzegom	0.2 kg (5.2%)	75 %	150
Grain	specjal B Castle Malting	0.21 kg (5.4%)	70 %	350

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	14 g	60 min	11 %
Boil	Citra	14 g	30 min	12.3 %
Boil	Mosaic	14 g	10 min	10.4 %
Dry Hop	Citra	28 g	3 day(s)	12.3 %
Dry Hop	Mosaic	28 g	3 day(s)	10.4 %

Yeasts

Name	Type	Form	Amount	Laboratory
us05	Ale	Dry	6 g	---

Extras

Type	Name	Amount	Use for	Time
Fining	whirfloc	15.4 g	Boil	15 min
Water Agent	gips piwowarski	2.8 g	Boil	60 min