

APAratka

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **30**
- SRM **4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

Steps

- Temp **52 C**, Time **5 min**
- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **16.2 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **5 min** at **52C**
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **78C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **26 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (74.1%)	80 %	5
Grain	Briess - 2 Row Carapils Malt	0.5 kg (9.3%)	75 %	3
Grain	Pszeniczny	0.4 kg (7.4%)	85 %	4
Grain	Oats, Flaked	0.5 kg (9.3%)	80 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Amarillo	10 g	20 min	9.5 %
Aroma (end of boil)	Cascade	10 g	20 min	6 %
Aroma (end of boil)	Citra	10 g	20 min	13.7 %
Aroma (end of boil)	Amarillo	10 g	10 min	9.5 %
Aroma (end of boil)	Cascade	10 g	10 min	6 %
Aroma (end of boil)	Citra	10 g	10 min	13.7 %
Whirlpool	Cascade	30 g	0 min	6 %
30min 80°C				
Dry Hop	Amarillo	30 g	3 day(s)	9.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	200 ml	---

Extras

Type	Name	Amount	Use for	Time
Water Agent	gips piwowarski	2 g	Mash	0 min
Fining	whirlfloc	2 g	Boil	10 min
Flavor	kandyzowane skórki pomarańczy	15 g	Secondary	3 day(s)
Flavor	kandyzowane skórki grejpfruta	15 g	Secondary	3 day(s)