

IPA11

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **2**
- SRM **4.9**
- Style **English IPA**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.4 liter(s)**
- Total mash volume **31.2 liter(s)**

Steps

- Temp **54 C**, Time **1 min**
- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **23.4 liter(s)** of strike water to **59.7C**
- Add grains
- Keep mash **1 min** at **54C**
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.5 kg (57.7%)	80 %	5
Grain	Pszeniczny	1 kg (12.8%)	85 %	4
Grain	Płatki owsiane	1.3 kg (16.7%)	85 %	3
Grain	Strzegom Karmel 150	1 kg (12.8%)	79 %	10

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	30 g	1 min	15.5 %
Aroma (end of boil)	Cascade PL	30 g	1 min	5.2 %
Dry Hop	Cascade PL	30 g	4 day(s)	5.2 %
Dry Hop	Columbus/Tomahawk/Zeus	30 g	4 day(s)	15.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale