

Made in Poland IPA by TwójBrowar.pl

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **57**
- SRM **4.5**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.1 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19.9 liter(s)**

Steps

- Temp **67 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **74.6C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.2 kg (86.6%)	80 %	5
Grain	Pszeniczny	0.4 kg (8.2%)	85 %	4
Grain	Karmelowy Jasny 30EBC	0.25 kg (5.2%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	25 g	60 min	11 %
Aroma (end of boil)	Puławski	30 g	15 min	4.3 %
Aroma (end of boil)	Cascade PL	50 g	10 min	5.2 %
Aroma (end of boil)	Oktawia	30 g	10 min	7.1 %
Dry Hop	Cascade PL	50 g	6 day(s)	5.2 %
Dry Hop	Chinook	30 g	6 day(s)	13 %

Yeasts

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