

Pipa

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **125**
- SRM **5.7**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **7 %**
- Size with trub loss **22.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **14 %/h**
- Boil size **28.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2 liter(s) / kg**
- Mash size **10 liter(s)**
- Total mash volume **15 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **67 C**, Time **10 min**
- Temp **72 C**, Time **10 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **10 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **10 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **77C**
- Sparge using **23.7 liter(s)** of **76C** water or to achieve **28.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Malt Wędzony Czereśnią	1 kg (19.5%)	82 %	10
Grain	Słód jęczmienny wędzony wiśnią	1 kg (19.5%)	82 %	10
Grain	Wędzony bukiem Viking Malt	1 kg (19.5%)	82 %	10
Grain	Słód jęczmienny wędzony jabłonią	1 kg (19.5%)	82 %	10
Grain	Słód jęczmienny wędzony gruszą	1 kg (19.5%)	82 %	10
Sugar	Cukier do refermentacji	0.12 kg (2.3%)	100 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	55 min	12.9 %
Boil	Marynka	20 g	55 min	8.4 %
Boil	Lublin (Lubelski)	20 g	55 min	3.5 %

Boil	Oktawia	20 g	55 min	7.8 %
Boil	lunga	20 g	30 min	12.9 %
Boil	Marynka	20 g	30 min	8.4 %
Boil	Lublin (Lubelski)	20 g	30 min	3.5 %
Boil	Oktawia	20 g	30 min	7.8 %
Aroma (end of boil)	lunga	20 g	5 min	12.9 %
Aroma (end of boil)	Marynka	20 g	5 min	8.4 %
Aroma (end of boil)	Lublin (Lubelski)	20 g	5 min	3.5 %
Aroma (end of boil)	Oktawia	20 g	5 min	7.8 %

Yeasts

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

Extras

Type	Name	Amount	Use for	Time
Water Agent	gips piwowarski	2 g	Mash	---
Fining	mech irlandzki	5 g	Boil	15 min