

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **41**
- SRM **6.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **1 %**
- Size with trub loss **22.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **9 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25.4 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **20 liter(s)** of strike water to **71.1C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Red Activ 30-40	1 kg (18.5%)	80 %	35
Grain	Strzegom Pilzneński	4 kg (74.1%)	80 %	4
Grain	Płatki owsiane	0.4 kg (7.4%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	30 g	60 min	9.5 %
Boil	Cascade	10 g	30 min	6 %
Aroma (end of boil)	Cascade	20 g	10 min	6 %
Aroma (end of boil)	Zula	10 g	5 min	7.3 %
Dry Hop	Amarillo	20 g	3 day(s)	9.5 %
Dry Hop	Zula	10 g	3 day(s)	7.3 %

Yeasts

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

Extras

Type	Name	Amount	Use for	Time
Other	Glukoza	170 g	Bottling	---
Fining	Whirlfloc T	1 g	Boil	5 min