

Fajrant

- Gravity **7.8 BLG**
- ABV **3 %**
- IBU **9**
- SRM **3**
- Style **American Pale Ale**

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 **3.5 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **13.5 liter(s)**

Steps

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

Mash step by step

- Heat up **10.5 liter(s)** of strike water to **79.4C**
- Add grains
- Keep mash **60 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1.5 kg (50%)	81 %	4
Grain	Żytni	1 kg (33.3%)	85 %	8
Grain	Pszeniczny	0.5 kg (16.7%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	10 g	10 min	10 %
Boil	Amarillo	10 g	10 min	9.5 %
Aroma (end of boil)	Mosaic	15 g	0 min	10 %
Aroma (end of boil)	Amarillo	15 g	0 min	9.5 %
Whirlpool	Mosaic	20 g	0 min	10 %
Whirlpool	Amarillo	20 g	0 min	9.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	---