

FAH

- Gravity **11.9 BLG**
- ABV ---
- IBU **39**
- SRM **3.5**

Batch size

- Expected quantity of finished beer **36 liter(s)**
- Trub loss **5 %**
- Size with trub loss **39.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **51.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **21.6 liter(s)**
- Total mash volume **30.3 liter(s)**

Steps

- Temp **68 C**, Time **70 min**

Mash step by step

- Heat up **21.6 liter(s)** of strike water to **77.6C**
- Add grains
- Keep mash **70 min** at **68C**
- Sparge using **38.9 liter(s)** of **76C** water or to achieve **51.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	8 kg (92.5%)	81 %	4
Grain	Monachijski	0.15 kg (1.7%)	80 %	16
Grain	Pszeniczny	0.5 kg (5.8%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	60 min	9.5 %
Boil	Marynka	25 g	30 min	9.5 %
Boil	Marynka	25 g	1 min	9.5 %
Boil	Puławski	25 g	1 min	8.9 %

Yeasts

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