

FAH

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **35**
- SRM **3.8**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **26 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **35.9 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **24.5 liter(s)**
- Total mash volume **31.5 liter(s)**

Steps

- Temp **62 C**, Time **10 min**
- Temp **72 C**, Time **45 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **24.5 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **10 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **35.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	7 kg (100%)	81 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	13.5 %
Dry Hop	Lublin (Lubelski)	50 g	7 day(s)	4 %
Boil	Magnum	10 g	5 min	13.5 %
Aroma (end of boil)	Centennial	30 g	0 min	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Liquid	1200 ml	safale