

FAH 4

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **42**
- SRM **4.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **29.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **34.2 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **40 C**, Time **0 min**
- Temp **67 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **43.3C**
- Add grains
- Keep mash **0 min** at **40C**
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **75C**
- Sparge using **22.2 liter(s)** of **76C** water or to achieve **34.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale Malteurop	5 kg (83.3%)	81 %	7
Grain	Pilzński Malteurop	1 kg (16.7%)	81 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Citra	15 g	10 min	13.2 %
Aroma (end of boil)	Amarillo	15 g	10 min	9.5 %
Aroma (end of boil)	Citra	15 g	5 min	13.2 %
Aroma (end of boil)	Amarillo	15 g	5 min	9.5 %
Whirlpool	Citra	15 g	10 min	13.2 %
Whirlpool	Amarillo	15 g	10 min	9.5 %
Boil	Galaxy	25 g	45 min	14.5 %

Yeasts

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

Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc	0.5 g	Boil	10 min