

nr 4 Moria

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **47**
- SRM **5.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **27.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.9 liter(s)**
- Total mash volume **29.4 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **22.9 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **10.9 liter(s)** of **76C** water or to achieve **27.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	5 kg (76.6%)	85 %	7
Grain	Weyermann - Carapils	0.58 kg (8.9%)	78 %	4
Grain	Vienna Malt	0.5 kg (7.7%)	78 %	8
Grain	Platki owsiane	0.2 kg (3.1%)	85 %	3
Grain	Acid Malt	0.25 kg (3.8%)	58.7 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	22 g	60 min	10.5 %
Boil	Mosaic	30 g	15 min	11.3 %
Aroma (end of boil)	Citra	33 g	7 min	12.8 %
Aroma (end of boil)	Mosaic	10 g	0 min	11.3 %
Aroma (end of boil)	Simcoe	10 g	0 min	14.5 %
Dry Hop	Simcoe	40 g	3 day(s)	14.5 %
Dry Hop	Mosaic	40 g	3 day(s)	11.3 %
Dry Hop	Amarillo	29 g	3 day(s)	7.5 %

Yeasts

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11.5 g	---

Extras

Type	Name	Amount	Use for	Time
Other	Whirfloc	0.5 g	Boil	10 min