

Pale Ale Bitter v. 2.0

- Gravity **11.9 BLG**
- ABV ---
- IBU **28**
- SRM **12.5**
- Style **Special/Best/Premium Bitter**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **14.4 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **20.8 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	4 kg (83.3%)	85 %	7
Grain	Cara Crystal Castlemalting	0.15 kg (3.1%)	78 %	150
Grain	Weyermann - Carapils	0.25 kg (5.2%)	78 %	4
Grain	Weyermann - Carawheat	0.15 kg (3.1%)	77 %	110
Grain	Weyermann - Caramunich	0.25 kg (5.2%)	80 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	30 g	60 min	5.8 %
Boil	English Golding	20 g	55 min	4.7 %
Aroma (end of boil)	English Golding	40 g	0 min	4.7 %
Dry Hop	Epic	60 g	5 day(s)	3.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale

Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	15 g	Boil	15 min