

Belgian Pale Ale

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **34**
- SRM **7.2**
- Style **Belgian Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **3 %**
- Size with trub loss **22.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.4 liter(s)**

Mash information

- Mash efficiency **79 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **15.2 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **55 C**, Time **10 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **15.2 liter(s)** of strike water to **60.5C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **27.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	3 kg (63.2%)	--- %	---
Grain	Monachijski Ciemny Steinbach	1 kg (21.1%)	--- %	---
Grain	Crystal 150	0.2 kg (4.2%)	--- %	---
Grain	Amber Malt	0.25 kg (5.3%)	75 %	43
Grain	Weyermann - Carapils	0.1 kg (2.1%)	78 %	4
Grain	Special B Malt	0.2 kg (4.2%)	65.2 %	315

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	15 g	60 min	7.3 %
Boil	Chinook	15 g	60 min	13.5 %
Whirlpool	Challenger	30 g	---	7.3 %
Whirlpool	Chinook	33 g	---	13.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	11 g	Fermentis

Extras

Type	Name	Amount	Use for	Time
Spice	curacao	5 g	Boil	1 min
Spice	suszone owoce gorzkiej pomarańczy	5 g	Boil	1 min