

## #02 Hoppy Belgian Pale Ale

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **38**
- SRM **7.9**
- Style **Belgian Pale Ale**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.8 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **17.3 liter(s)**

### Steps

- Temp **62 C**, Time **40 min**
- Temp **68 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **13.5 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **10.2 liter(s)** of **76C** water or to achieve **19.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (51.9%)	80 %	5
Grain	Strzegom Monachijski typ I	0.5 kg (13%)	79 %	16
Grain	Pszeniczny	1 kg (26%)	85 %	4
Grain	Strzegom Karmel 150	0.25 kg (6.5%)	75 %	150
Grain	Płatki owsiane	0.1 kg (2.6%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	15 g	60 min	10 %
Boil	Marynka	15 g	30 min	10 %
Dry Hop	Amarillo	30 g	5 day(s)	9.5 %
Dry Hop	Mosaic	30 g	5 day(s)	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Mangrove Jack's M47 Belgian Abbey	Ale	Dry	10 g	Mangrove Jack's
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