

## BPA

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **24**
- SRM **5.9**
- Style **Belgian Pale Ale**

### Batch size

- Expected quantity of finished beer **36 liter(s)**
- Trub loss **5 %**
- Size with trub loss **37.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **45.5 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **30.8 liter(s)**
- Total mash volume **39.6 liter(s)**

### Steps

- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **15 min**

### Mash step by step

- Heat up **30.8 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **20 min** at **64C**
- Keep mash **45 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **23.5 liter(s)** of **76C** water or to achieve **45.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Malteurop MepAle (Pale Ale)	6 kg (68.2%)	85 %	5
Grain	Strzegom Monachijski typ I	1 kg (11.4%)	79 %	16
Grain	Abbey Malt Weyermann	0.5 kg (5.7%)	75 %	45
Grain	Carabelge	0.5 kg (5.7%)	80 %	30
Grain	Płatki orkiszowe	0.3 kg (3.4%)	85 %	3
Grain	Płatki owsiane	0.5 kg (5.7%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Premiant	50 g	35 min	8 %
Boil	Fuggles	20 g	15 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM28 Habit opata	Ale	Slant	1000 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	10 min