

## .BELGIAN PA

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- Gravity **12.9 BLG**
- ABV ---
- IBU **23**
- SRM **9.2**
- Style **Belgian Pale Ale**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **20.4 liter(s)**

### Steps

- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **15.3 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **20 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **18.8 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (49%)	80 %	5
Grain	Strzegom Monachijski typ I	2 kg (39.2%)	79 %	16
Grain	Abbey Castle	0.3 kg (5.9%)	80 %	45
Grain	carabelg	0.3 kg (5.9%)	74 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	30 g	55 min	5.1 %
Boil	East Kent Goldings	30 g	15 min	5.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM20 Białe Walonki	Wheat	Slant	150 ml	Fermentum Mobile