

## #27 Belgian Pale Ale (powtórka #2 ze zmianami)

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **35**
- SRM **6.5**
- Style **Belgian Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23 liter(s)**

### Steps

- Temp **65 C**, Time **30 min**
- Temp **70 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **17.7 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **70C**
- Keep mash **5 min** at **78C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (56.1%)	80 %	5
Grain	Strzegom Monachijski typ I	1 kg (18.7%)	79 %	16
Grain	Strzegom Pszeniczny	1 kg (18.7%)	81 %	6
Grain	Płatki owsiane	0.2 kg (3.7%)	85 %	3
Grain	Strzegom Karmel 150	0.15 kg (2.8%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	5 g	60 min	14 %
Boil	Magnat	10 g	40 min	14 %
Boil	Magnat	10 g	20 min	14 %
Boil	Huell Melon	10 g	5 min	6.8 %
Whirlpool	Huell Melon	20 g	20 min	6.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Mangrove Jack's M47 Belgian Abbey	Ale	Slant	200 ml	Mangrove Jack's
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