

## #73 Belgian pale ale

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **25**
- SRM **9.7**
- Style **Belgian Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **17 %/h**
- Boil size **29.7 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

### Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **30 min**

### Mash step by step

- Heat up **13.8 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **30 min** at **76C**
- Sparge using **20.5 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3 kg (65.2%)	81 %	4
Grain	Monachijski	1 kg (21.7%)	80 %	16
Grain	Cookie	0.3 kg (6.5%)	75 %	150
Grain	Strzegom Karmel 150	0.3 kg (6.5%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	30 g	60 min	7 %
Aroma (end of boil)	Saaz (Czech Republic)	30 g	5 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM 26	Ale	Slant	200 ml	Fermentum mobile