

Belgian pale ale

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **26**
- SRM **7.8**
- Style **Belgian Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **45 min**
- Temp **77 C**, Time **1 min**

Mash step by step

- Heat up **19.5 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **12.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński - Strzegom	2 kg (30.8%)	70 %	4
Grain	Monachijski typ II - Strzegom	1.5 kg (23.1%)	70 %	22
Grain	Pale Ale - Strzegom	2 kg (30.8%)	70 %	6
Grain	Carabelge - Weyermann	0.5 kg (7.7%)	70 %	30
Grain	Karmelowy Biscuit 50 Castle	0.5 kg (7.7%)	70 %	9

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings - UK	30 g	60 min	4.5 %
Boil	Styrian Goldings - Słowenia	30 g	20 min	5.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

Mangrove Jack's M41 Belgian Ale	Ale	Dry	10 g	Mangrove Jack's
------------------------------------	-----	-----	------	-----------------