

## Belgijka #3 - Belgijskie Pale Ale - Browar na Wyżynie

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **21**
- SRM **8.7**
- Style **Belgian Pale Ale**

### Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **6 %**
- Size with trub loss **20.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **23.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

### Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **14.1 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **23.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	pale ale Viking Malt	3 kg (63.8%)	79 %	8
Grain	monachijski typ II Viking Malt	0.5 kg (10.6%)	78 %	22
Grain	golden ale - Viking Malt	0.5 kg (10.6%)	80 %	14
Grain	bursztynowy cookie Viking Malt	0.5 kg (10.6%)	72 %	70
Grain	pszeniczny Viking Malt	0.2 kg (4.3%)	84 %	6

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Junga (PL) - granulát	10 g	60 min	12.5 %
Boil	Lubelski (PL) - granulát	15 g	20 min	3.8 %
Aroma (end of boil)	Lubelski (PL) - granulát	15 g	5 min	3.8 %

### Yeasts

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

FM21 Odkrycie sezonu	Ale	Slant	500 ml	Fermentum Mobile
----------------------	-----	-------	--------	------------------

### Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	4 g	Boil	15 min
Water Agent	kwas mlekowy 80%	5 g	Mash	70 min
Water Agent	chlerek wapnia	3 g	Mash	70 min

### Notes

- Profil wody:  
Ca+2 Mg+2 Na+ Cl- SO4-2 HCOAlkalinity Residual  
149.2 20.0 6.0 66.7 46.0 192.3 284.4 139.0

SO42-/Cl- ratio: 0.6 Malty

<https://www.brewersfriend.com/mash-chemistry-and-brewing-water-calculator/?id=XRXXN5T>  
Mar 9, 2018, 4:00 PM