

# Quadrupel #1 - Browar na Wyżynie

- Gravity **20.5 BLG**
- ABV **9 %**
- IBU **23**
- SRM **18.7**
- Style **Belgian Dark Strong Ale**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **6 %**
- Size with trub loss **15.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **18.5 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **20 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **7.5 liter(s)** of **76C** water or to achieve **18.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	pilzneński Viking Malt	2.5 kg (41.7%)	80 %	5
Grain	golden ale - Viking Malt	2.5 kg (41.7%)	80 %	14
Grain	Château Special B Castle Malting	0.5 kg (8.3%)	77 %	300
Sugar	cukier kandyzowany	0.5 kg (8.3%)	--- %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Junga (PL) - granulát	15 g	40 min	12.5 %
Boil	Lubelski (PL) - granulát	10 g	20 min	3.8 %
Boil	Lubelski (PL) - granulát	20 g	5 min	3.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM26 Belgijskie Pagórki	Ale	Slant	500 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Other	cukier kandyzowany	500 g	Boil	20 min
Fining	mech irlandzki	4 g	Boil	15 min
Water Agent	kwask mlekowy 80%	4 g	Mash	70 min
Water Agent	chlorek sodu	2 g	Mash	70 min

## Notes

- Profil wody:  
Ca+2 Mg+2 Na+ Cl- SO4-2 HCO  
138.0 12.0 23.7 70.6 35.0 289.842  
*Jan 6, 2018, 11:58 AM*
- Cukier kandyzowany własnej produkcji:  
0.5kg cukru  
5g kwasek cytrynowy  
karmelizacja 20min (nastwy mojej kuchenki 5min. na 8, 15min na 7)  
*Jan 6, 2018, 12:00 PM*