

# projekt Świąteczne #1 - Browar na Wyżynie

- Gravity **16.6 BLG**
- ABV ---
- IBU **32**
- SRM **38.4**
- Style **Foreign Extra Stout**

## Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **6 %**
- Size with trub loss **17 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.8 liter(s)**

## Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

## Steps

- Temp **55 C**, Time **10 min**
- Temp **69 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16.2 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **45 min** at **69C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **9 liter(s)** of **76C** water or to achieve **19.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	pale ale Viking Malt	3 kg (49.9%)	79 %	8
Grain	bursztynowy cookie Viking Malt	1 kg (16.6%)	72 %	60
Grain	jęczmień prażony Viking Malt	0.2 kg (3.3%)	1 %	1000
Grain	czekoladowy ciemny Viking Malt	0.3 kg (5%)	1 %	1200
Grain	pszeniczny Viking Malt	0.3 kg (5%)	81 %	5
Grain	płatki owsiane błyskawiczne	0.6 kg (10%)	50 %	3
Sugar	Miód gryczany	0.5 kg (8.3%)	--- %	---
Sugar	cukier	0.111 kg (1.8%)	--- %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Junga (PL) - granulát	20 g	60 min	12.5 %

Boil	Lubelski (PL) - granulat	20 g	5 min	4 %
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### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	500 ml	---

### Extras

Type	Name	Amount	Use for	Time
Flavor	Skórka pomarańczy	100 g	Boil	5 min
Spice	Przyprawa do piernika Kamis	20 g	Boil	5 min
Flavor	Skórka pomarańczy	80 g	Secondary	7 day(s)