

# Kuźnia

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **23**
- SRM **48.6**
- Style **Oatmeal Stout**

## Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **10 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **22 %/h**
- Boil size **16.1 liter(s)**

## Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.4 liter(s)**
- Total mash volume **13.8 liter(s)**

## Steps

- Temp **66 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **10.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **15 min** at **66C**
- Keep mash **45 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **16.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1.9 kg (49.2%)	80 %	5
Grain	Płatki owsiane	0.4 kg (10.4%)	85 %	3
Grain	Fawcett - Crystal	0.6 kg (15.5%)	70 %	160
Grain	Fawcett - Pszeniczny Czekoladowy	0.25 kg (6.5%)	73 %	1001
Grain	Carafa III Special	0.2 kg (5.2%)	70 %	1034
Sugar	Milk Sugar (Lactose)	0.4 kg (10.4%)	76.1 %	0
Grain	Jęczmień palony	0.11 kg (2.8%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	12 g	60 min	11.7 %

## Notes

- Drożdże S-04  
Wszystkie słydy zacieranie od początku.  
Laktoza dodana na koniec gotowania.  
Aromaty dodane przed rozlewem:  
Capella Brownie 5 kropel/litr  
Funky Flavors Vanilla 4 krople/litr

Capella Blueberry 2 krople/litr  
Funky Flavors Biscotti 1 kropla/litr  
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