

Rock the night

- Gravity **15.9 BLG**
- ABV ---
- IBU **51**
- SRM **40**
- Style **Foreign Extra Stout**

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 **75 %**
- Liquor-to-grist ratio **2.83 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **23 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **68 C**, Time **15 min**
- Temp **68 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **17 liter(s)** of strike water to **76.5C**
- Add grains
- Keep mash **15 min** at **68C**
- Keep mash **10 min** at **68C**
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	3.3 kg (55%)	80 %	4
Grain	Grodziski pszeniczny wędzony dębem	1 kg (16.7%)	80 %	3
Grain	Chocolate Malt (UK)	0.3 kg (5%)	73 %	887
Grain	Brown	0.3 kg (5%)	--- %	---
Grain	Pale chocolate	0.3 kg (5%)	--- %	---
Grain	Jęczmień palony	0.4 kg (6.7%)	55 %	985
Grain	Płatki jęczmienne	0.4 kg (6.7%)	--- %	---

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Target	40 g	60 min	10.5 %
Dry Hop	Cascade	35 g	7 day(s)	7.7 %
Aroma (end of boil)	Cascade	15 g	15 min	7.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale