

Grom

- Gravity **18.4 BLG**
- ABV **8 %**
- IBU **18**
- SRM **4.5**
- Style **Baltic Porter**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **3 %**
- Size with trub loss **13.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **4 %/h**
- Boil size **14.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.3 liter(s)**
- Total mash volume **15.8 liter(s)**

Steps

- Temp **64 C**, Time **45 min**
- Temp **68 C**, Time **15 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **12.3 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **5.7 liter(s)** of **76C** water or to achieve **14.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1.5 kg (37.5%)	81 %	4
Grain	Barley, Raw	0.5 kg (12.5%)	60.9 %	4
Grain	Strzegom Pale Ale	1.5 kg (37.5%)	79 %	6
Sugar	demerara	0.5 kg (12.5%)	100 %	---

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Progress	10 g	60 min	6.9 %
Boil	Celeia	10 g	60 min	5.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	---

Extras

Type	Name	Amount	Use for	Time
Flavor	daktyle	200 g	Boil	30 min

Flavor	śliwki	200 g	Boil	30 min
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