

Porter a'la RIS

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **40**
- SRM **22.8**

Batch size

- Expected quantity of finished beer **35 liter(s)**
- Trub loss **5 %**
- Size with trub loss **36.8 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **45.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **31.8 liter(s)**
- Total mash volume **42.4 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **31.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **24.5 liter(s)** of **76C** water or to achieve **45.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Maris Otter Crisp	5.5 kg (48.2%)	83 %	6
Grain	Strzegom Monachijski typ II	3.5 kg (30.7%)	79 %	22
Grain	Czekoladowy	0.5 kg (4.4%)	60 %	788
Grain	Weyermann - Caraamber	0.4 kg (3.5%)	75 %	65
Grain	Specjal B 350	0.3 kg (2.6%)	68 %	350
Grain	Jęczmienny Wędzony 10 viking malt	0.2 kg (1.8%)	80 %	5
Adjunct	Płatki owsiane	0.4 kg (3.5%)	85 %	3
Adjunct	Płatki pszeniczne	0.4 kg (3.5%)	85 %	3
Grain	Fawcett - Crystal	0.2 kg (1.8%)	70 %	160

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	70 g	60 min	10 %
Aroma (end of boil)	Lublin (Lubelski)	50 g	5 min	4 %
Dry Hop	Lublin (Lubelski)	15 g	2 day(s)	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	23 g	Safale

Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	12 g	Mash	180 min