

Stout piernikowy z wysłodzin risa

- Gravity **19.3 BLG**
- ABV **8.4 %**
- IBU **24**
- SRM **39.2**
- Style **Oatmeal Stout**

Batch size

- Expected quantity of finished beer **32 liter(s)**
- Trub loss **5 %**
- Size with trub loss **33.6 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **43.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **37 liter(s)**
- Total mash volume **49.3 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **64 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **37 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **76C**
- Sparge using **18.8 liter(s)** of **76C** water or to achieve **43.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	7.15 kg (58%)	85 %	7
Grain	Karmelowy Jasny 30EBC	1 kg (8.1%)	75 %	30
Grain	Strzegom Monachijski typ II	0.55 kg (4.5%)	79 %	22
Grain	Oats, Flaked	1.8 kg (14.6%)	80 %	2
Grain	Strzegom Karmel 600	1 kg (8.1%)	68 %	601
Grain	Weyermann - Carafa III	0.55 kg (4.5%)	70 %	1024
Grain	Carafa	0.28 kg (2.3%)	70 %	664

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	57 g	60 min	8.5 %
Boil	Hallertau	40 g	0 min	4.4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	110 ml	Fermentis

Extras

Type	Name	Amount	Use for	Time
Spice	Przyprawa korzenna do piernika	54 g	Boil	15 min
Spice	Cynamon	10 g	Boil	15 min
Spice	Gozdziki	5 g	Boil	15 min
Spice	Zest z 4 pomaranczy	10 g	Boil	15 min