Bezglutenowe ciemne 100l

- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **31**
- SRM **---**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **100 liter(s)**
- Trub loss **5 %**
- Size with trub loss **106 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **127.6 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **87.5 liter(s)**
- Total mash volume **112.5 liter(s)**

Steps

- Temp **45 C**, Time **20 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **87.5 liter(s)** of strike water to **48.6C**
- Add grains
- Keep mash **20 min** at **45C**
- Keep mash **30 min** at **72C**
- Sparge using **65.1 liter(s)** of **76C** water or to achieve **127.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód gryczany	16.67 kg *(66.7%)*	48 %	---
Grain	Grys kukurydziany	3.33 kg *(13.3%)*	80 %	---
Grain	Płatki ryżowe	1.67 kg *(6.7%)*	85 %	---
Grain	Proso	3.33 kg *(13.3%)*	51 %	---

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	16.67 g	60 min	13.3 %
Boil	Simcoe	16.67 g	45 min	13.3 %
Boil	Simcoe	33.33 g	30 min	13.3 %
Boil	Simcoe	66.67 g	15 min	13.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	57.33 g	Safale

Extras

Type	Name	Amount	Use for	Time
Spice	Pędy sosny	66.67 g	Boil	5 min

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Spice	Pędy sosny	166.67 g	Secondary	4 day(s)
Flavor	Kawa Brazil Fazenda Sertãozinho	333.33 g	Secondary	4 day(s)

Notes

- Stopień zmielenia kawy jak do French Pressa albo Chemexa.
  Ewentualny dodatek jagód jałowca w ilości 40g na cichą.
  2g barwnika spożywczego bezpośrednio przed rozlewem.
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