

Dry Stout z Browamator + Warrior

- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **31**
- SRM **21.5**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **11.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **14.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **7.8 liter(s)**
- Total mash volume **10.1 liter(s)**

Steps

- Temp **62 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **7.8 liter(s)** of strike water to **68.2C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **1 min** at **78C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **14.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	1.6 kg (69.6%)	85 %	7
Grain	Płatki Jęczmienne	0.25 kg (10.9%)	85 %	3
Grain	Jęczmień palony	0.15 kg (6.5%)	55 %	985
Dodać w 60min zacierania na 76stopni C				
Grain	Weyermann - Carafa II	0.05 kg (2.2%)	70 %	837
Dodać w 60min zacierania na 76stopni C				
Grain	Płatki owsiane	0.25 kg (10.9%)	60 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Willamette	30 g	60 min	5 %
Whirlpool	Warrior	30 g	0 min	15.5 %

Yeasts

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