

Draj

- Gravity **10 BLG**
- ABV **4 %**
- IBU **33**
- SRM **28.3**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **1 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **24 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14.2 liter(s)**
- Total mash volume **18.2 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **14.2 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **24 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) UK	3 kg (74.1%)	78 %	6
Grain	Płatki owsiane	0.5 kg (12.3%)	85 %	3
Grain	Czekoladowy	0.25 kg (6.2%)	60 %	788
Grain	Jęczmień palony	0.3 kg (7.4%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	10 %
Boil	Sybilla	25 g	5 min	3.5 %

Yeasts

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