

## dry stout

---

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **42**
- SRM **27.4**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **22.7 liter(s)**

### Steps

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

### Mash step by step

- Heat up **17.7 liter(s)** of strike water to **77.1C**
- Add grains
- Keep mash **10 min** at **70C**
- Keep mash **70 min** at **70C**
- Sparge using **19.1 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	4.4 kg (77.9%)	80 %	7
Grain	Briess - Dark Chocolate Malt	0.25 kg (4.4%)	75 %	827
Grain	Jęczmień palony	0.4 kg (7.1%)	65 %	985
Adjunct	Płatki owsiane	0.6 kg (10.6%)	70 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Target	45 g	60 min	10.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M15 Empire Ale	Ale	Dry	10 g	Mangrove Jack's