

## #18 Dry Stout

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **24**
- SRM **28.6**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.9 liter(s)**
- Total mash volume **14.6 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **10.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **20 min** at **72C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (82.2%)	80 %	5
Grain	Pszeniczny	0.3 kg (8.2%)	85 %	4
Grain	Fawcett - Pszeniczny Czekoladowy	0.1 kg (2.7%)	73 %	1001
Grain	Jęczmień palony	0.15 kg (4.1%)	55 %	985
Grain	Extra black	0.1 kg (2.7%)	65 %	1400

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	10 g	60 min	12.4 %
Aroma (end of boil)	Fuggles	30 g	5 min	5.9 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	1000 ml	Fermentum Mobile
Starter 48h, 1 liter				

### Extras

Type	Name	Amount	Use for	Time
Fining	whirfloc	1 g	Boil	10 min