

## #51 Dry Stout

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **24**
- SRM **28.3**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **29 liter(s)**
- Trub loss **5 %**
- Size with trub loss **30.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **35 liter(s)**

### Mash information

- Mash efficiency **80.5 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.4 liter(s)**
- Total mash volume **28.8 liter(s)**

### Steps

- Temp **65 C**, Time **55 min**
- Temp **72 C**, Time **25 min**
- Temp **77 C**, Time **3 min**

### Mash step by step

- Heat up **22.4 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **55 min** at **65C**
- Keep mash **25 min** at **72C**
- Keep mash **3 min** at **77C**
- Sparge using **19 liter(s)** of **76C** water or to achieve **35 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	4.5 kg (70.3%)	80 %	7
Grain	Płatki pszeniczne	1 kg (15.6%)	85 %	3
Grain	Strzegom Czekoladowy jasny	0.5 kg (7.8%)	68 %	400
Grain	Strzegom Barwiący	0.4 kg (6.3%)	68 %	1300

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga PL	15 g	50 min	11 %
Aroma (end of boil)	East Kent Goldings	30 g	30 min	4.5 %
Aroma (end of boil)	East Kent Goldings	20 g	15 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	200 ml	---

### Extras

Type	Name	Amount	Use for	Time
------	------	--------	---------	------

Fining	Whirlfloc	2.5 g	Boil	12 min
--------	-----------	-------	------	--------