

# rye dry stout

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **34**
- SRM **30.5**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **21.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.2 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **19.8 liter(s)**

## Steps

- Temp **67 C**, Time **70 min**
- Temp **67 C**, Time **10 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **15.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **10 min** at **67C**
- Keep mash **70 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **27.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (45.5%)	80 %	5
Grain	Żytni	1 kg (22.7%)	85 %	8
Grain	Monachijski	0.5 kg (11.4%)	80 %	16
Grain	Płatki jęczmienne	0.4 kg (9.1%)	85 %	3
Grain	Jęczmień palony	0.2 kg (4.5%)	55 %	1100
Grain	Carafa III	0.2 kg (4.5%)	70 %	1350
Grain	Strzegom Czekoladowy ciemny	0.1 kg (2.3%)	68 %	1200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Admiral	18 g	60 min	15.7 %
Boil	Fuggles	20 g	10 min	5.9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	---