

# Smoked rye stout

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **36**
- SRM **38**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **23.1 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.4 liter(s)**
- Total mash volume **23.6 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**

## Mash step by step

- Heat up **18.4 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **10 liter(s)** of **76C** water or to achieve **23.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Casle Malting Whisky Nature	2 kg (38.1%)	85 %	4
Grain	Żyto prażone	0.25 kg (4.8%)	70 %	1000
Grain	Weyermann - Carafa III	0.25 kg (4.8%)	70 %	1024
Grain	Żytni	1.5 kg (28.6%)	85 %	8
Grain	Jęczmień palony	0.25 kg (4.8%)	55 %	985
Grain	Strzegom Wiedeński	1 kg (19%)	5 %	10

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Target	40 g	40 min	9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis