

# Smoked Rye Stout

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- Gravity **10.1 BLG**
- ABV ---
- IBU **46**
- SRM **40**
- 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 **15 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **17.5 liter(s)**

## Steps

- Temp **40 C**, Time **10 min**
- Temp **64 C**, Time **50 min**
- Temp **75 C**, Time **10 min**

## Mash step by step

- Heat up **14 liter(s)** of strike water to **42.5C**
- Add grains
- Keep mash **10 min** at **40C**
- Keep mash **50 min** at **64C**
- Keep mash **10 min** at **75C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

| Type  | Name                    | Amount         | Yield | EBC  |
|-------|-------------------------|----------------|-------|------|
| Grain | Pale Ale                | 2.5 kg (71.4%) | 80 %  | 5    |
| Grain | Żytni wędzony Stainbach | 0.5 kg (14.3%) | 80 %  | 10   |
| Grain | Extra black             | 0.5 kg (14.3%) | 65 %  | 1400 |

## Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | Magnum | 15 g   | 60 min | 12 %       |
| Boil    | lunga  | 15 g   | 60 min | 11 %       |

## Yeasts

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

## Extras

| Type        | Name            | Amount | Use for | Time |
|-------------|-----------------|--------|---------|------|
| Water Agent | Gips piwowarski | 10 g   | Mash    | ---  |