

# Slav smoked black rye ale

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **27**
- SRM **25**
- Style **Rye IPA**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.7 liter(s)**
- Total mash volume **11.6 liter(s)**

## Steps

- Temp **45 C**, Time **20 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **8.7 liter(s)** of strike water to **49.2C**
- Add grains
- Keep mash **20 min** at **45C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **6.9 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

## Fermentables

| Type  | Name                             | Amount         | Yield | EBC  |
|-------|----------------------------------|----------------|-------|------|
| Grain | Viking Malt<br>Wędzony Czereśnią | 1 kg (34.5%)   | 82 %  | 10   |
| Grain | smoked                           | 1 kg (34.5%)   | 80 %  | 4    |
| Grain | Żytni                            | 0.7 kg (24.1%) | 85 %  | 8    |
| Grain | Jęczmień palony                  | 0.2 kg (6.9%)  | 55 %  | 1000 |

## Hops

| Use for   | Name   | Amount | Time   | Alpha acid |
|-----------|--------|--------|--------|------------|
| Boil      | lunga  | 10 g   | 20 min | 12.5 %     |
| Boil      | Aurora | 10 g   | 20 min | 8.5 %      |
| Whirlpool | lunga  | 10 g   | 5 min  | 12.5 %     |
| Whirlpool | Aurora | 10 g   | 5 min  | 8.5 %      |

## Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| us-05 | Ale  | Dry  | 6 g    | ---        |