

# Ris gryczany

- Gravity **25.3 BLG**
- ABV **11.8 %**
- IBU **73**
- SRM **40**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **11 liter(s)**
- Boil time **90 min**
- Evaporation rate **20 %/h**
- Boil size **15 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **26.6 liter(s)**

## Steps

- Temp **68 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **20.7 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **90 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **0.2 liter(s)** of **76C** water or to achieve **15 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | kasza gryczana              | 1 kg (16.9%)   | 65 %  | 50   |
| Grain | Viking Pale Ale malt        | 4 kg (67.7%)   | 80 %  | 5    |
| Grain | Diastatyczny                | 0.4 kg (6.8%)  | 81 %  | 4    |
| Grain | Carafa III specjal          | 0.05 kg (0.8%) | 70 %  | 1034 |
| Grain | Strzegom Czekoladowy 400    | 0.3 kg (5.1%)  | 68 %  | 400  |
| Grain | Strzegom Czekoladowy ciemny | 0.16 kg (2.7%) | 68 %  | 1200 |

## Hops

| Use for | Name  | Amount | Time   | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil    | lunga | 50 g   | 60 min | 11 %       |

## Yeasts

| Name        | Type | Form  | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale  | Slant | 100 ml | Safale     |