

# RISIEK

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- Gravity **27 BLG**
- ABV **12.9 %**
- IBU **76**
- SRM **49.8**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **120 min**
- Evaporation rate **11 %/h**
- Boil size **28.1 liter(s)**

## Mash information

- Mash efficiency **69 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **37.2 liter(s)**
- Total mash volume **49.6 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **37.2 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **3.3 liter(s)** of **76C** water or to achieve **28.1 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount        | Yield | EBC  |
|-------|-----------------------------|---------------|-------|------|
| Grain | Mep@ale (Malteurop)         | 8 kg (64.5%)  | 81 %  | 8    |
| Grain | MEP@Lager                   | 3 kg (24.2%)  | 82 %  | 6    |
| Grain | Fawcett - Pale Chocolate    | 0.3 kg (2.4%) | 71 %  | 600  |
| Grain | Strzegom Czekoladowy ciemny | 0.3 kg (2.4%) | 68 %  | 1200 |
| Grain | Strzegom Karmel 300         | 0.3 kg (2.4%) | 70 %  | 299  |
| Grain | Jęczmień palony             | 0.5 kg (4%)   | 55 %  | 985  |

## Hops

| Use for | Name                   | Amount | Time   | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil    | Columbus/Tomahawk/Zeus | 50 g   | 60 min | 14.5 %     |
| Boil    | Citra                  | 30 g   | 30 min | 12 %       |
| Boil    | Amarillo               | 30 g   | 15 min | 8.2 %      |
| Boil    | Cascade                | 30 g   | 15 min | 6.9 %      |

## Yeasts

| <b>Name</b>               | <b>Type</b> | <b>Form</b> | <b>Amount</b> | <b>Laboratory</b> |
|---------------------------|-------------|-------------|---------------|-------------------|
| FM13 Irlandzkie Ciemności | Ale         | Liquid      | 250 ml        | Fermentum Mobile  |