

# Czarna pożyczka

- Gravity **12.1 BLG**
- ABV ---
- IBU **49**
- SRM **15.2**
- Style **Fruit Beer**

## 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 **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **58 C**, Time **15 min**
- Temp **66 C**, Time **45 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **64.3C**
- Add grains
- Keep mash **15 min** at **58C**
- Keep mash **45 min** at **66C**
- Keep mash **5 min** at **76C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield  | EBC |
|-------|----------------------------|----------------|--------|-----|
| Grain | Strzegom Pilzneński        | 1.5 kg (33.3%) | 80 %   | 4   |
| Grain | Strzegom Monachijski typ I | 1.5 kg (33.3%) | 79 %   | 16  |
| Grain | Strzegom Pszeniczny        | 0.5 kg (11.1%) | 81 %   | 6   |
| Grain | Biscuit Malt               | 0.3 kg (6.7%)  | 79 %   | 45  |
| Grain | Special B Malt             | 0.1 kg (2.2%)  | 65.2 % | 315 |
| Grain | Karmelowy Czerwony         | 0.5 kg (11.1%) | 75 %   | 59  |
| Grain | Strzegom Karmel 150        | 0.1 kg (2.2%)  | 75 %   | 150 |

## Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | Magnum | 30 g   | 55 min | 13.5 %     |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11.6 g | Safale     |

## Extras

| Type   | Name     | Amount | Use for | Time     |
|--------|----------|--------|---------|----------|
| Flavor | pożeczka | 2000 g | Primary | 1 day(s) |