

# CZARNOBRODY

- Gravity **23 BLG**
- ABV ---
- IBU **32**
- SRM **40**
- Style **Baltic Porter**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **18.5 %**
- Size with trub loss **21.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **23.4 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.71 liter(s) / kg**
- Mash size **23 liter(s)**
- Total mash volume **31.5 liter(s)**

## Steps

- Temp **61 C**, Time **30 min**
- Temp **73 C**, Time **30 min**
- Temp **79 C**, Time **2 min**

## Mash step by step

- Heat up **23 liter(s)** of strike water to **68.6C**
- Add grains
- Keep mash **30 min** at **61C**
- Keep mash **30 min** at **73C**
- Keep mash **2 min** at **79C**
- Sparge using **8.9 liter(s)** of **76C** water or to achieve **23.4 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Strzegom Wiedeński  | 4 kg (47.1%)   | 79 %  | 10  |
| Grain | Monachijski         | 3 kg (35.3%)   | 80 %  | 16  |
| Grain | Strzegom Karmel 30  | 0.35 kg (4.1%) | 75 %  | 30  |
| Grain | Strzegom Karmel 600 | 0.4 kg (4.7%)  | 68 %  | 601 |
| Grain | Czekoladowy         | 0.45 kg (5.3%) | 60 %  | 788 |
| Grain | Pilzneński          | 0.2 kg (2.4%)  | 81 %  | 4   |
| Grain | Caraaroma           | 0.1 kg (1.2%)  | 78 %  | 400 |

## Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Marynka           | 35 g   | 60 min | 10.5 %     |
| Boil    | Lublin (Lubelski) | 20 g   | 20 min | 3 %        |

## Yeasts

| Name                       | Type  | Form   | Amount | Laboratory |
|----------------------------|-------|--------|--------|------------|
| Wyeast 2000 - Budvar Lager | Lager | Liquid | 400 ml | ---        |

## Extras

| Type   | Name           | Amount | Use for | Time   |
|--------|----------------|--------|---------|--------|
| Fining | Mech Irlandzki | 4 g    | Boil    | 15 min |