

# ciemne

- Gravity **19.3 BLG**
- ABV **8.4 %**
- IBU **33**
- SRM **62.3**
- Style **Baltic Porter**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.4 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **32.3 liter(s)**

## Steps

- Temp **67 C**, Time **80 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **22.8 liter(s)** of strike water to **76.8C**
- Add grains
- Keep mash **80 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount        | Yield | EBC  |
|-------|-----------------------------|---------------|-------|------|
| Grain | Viking Pale Ale malt        | 5 kg (52.6%)  | 80 %  | 5    |
| Grain | Viking Munich Malt          | 1 kg (10.5%)  | 78 %  | 18   |
| Grain | Strzegom Karmel 300         | 2 kg (21.1%)  | 70 %  | 299  |
| Grain | Strzegom Czekoladowy ciemny | 1 kg (10.5%)  | 68 %  | 1200 |
| Grain | Fawcett - Brown             | 0.5 kg (5.3%) | 72 %  | 180  |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Warrior | 30 g   | 60 min | 15 %       |

## Yeasts

| Name                       | Type | Form  | Amount | Laboratory |
|----------------------------|------|-------|--------|------------|
| Gozdawa - Pure Ale Yeast 7 | Ale  | Slant | 300 ml | Gozdawa    |