

# #B013 KOZŁAK

- Gravity **19.1 BLG**
- ABV **8.3 %**
- IBU **34**
- SRM **14.4**
- Style **Traditional Bock**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **9 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount        | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Viking Pilsner malt        | 2 kg (36.4%)  | 82 %  | 4   |
| Grain | Strzegom Monachijski typ I | 1 kg (18.2%)  | 79 %  | 16  |
| Grain | Strzegom Wiedeński         | 1 kg (18.2%)  | 79 %  | 10  |
| Grain | Karmelowy Czerwony         | 1 kg (18.2%)  | 75 %  | 59  |
| Sugar | Brown Sugar, Dark          | 0.5 kg (9.1%) | 100 % | 99  |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 30 g   | 60 min | 10 %       |

## Yeasts

| Name   | Type  | Form | Amount | Laboratory |
|--------|-------|------|--------|------------|
| W34/70 | Lager | Dry  | 11 g   | ---        |

## Notes

- 24.11.2021 = warzenie
- 25.11.2021 = start fermentacji 11,5C 20BLG
- Nov 3, 2021, 8:38 PM