

# KOŻŁAK

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **45**
- SRM **20.5**
- Style **Traditional Bock**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.2 liter(s)**
- Total mash volume **29.6 liter(s)**

## Fermentables

| Type  | Name                        | Amount        | Yield | EBC  |
|-------|-----------------------------|---------------|-------|------|
| Grain | Weyermann® - Barke® Pilsner | 5 kg (67.6%)  | 81 %  | 4    |
| Grain | Weyermann® - Munich® Ciemny | 1 kg (13.5%)  | 80 %  | 25   |
| Grain | Płatki owsiane              | 0.5 kg (6.8%) | 60 %  | 3    |
| Grain | Weyermann® Caraaroma®       | 0.2 kg (2.7%) | 78 %  | 400  |
| Grain | Płatki orkiszowe            | 0.5 kg (6.8%) | 60 %  | 4    |
| Grain | Słód Barwiący Viking Malt   | 0.2 kg (2.7%) | 70 %  | 1400 |

## Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Mash                | Cascade | 50 g   | 30 min | 6 %        |
| Mash                | Citra   | 50 g   | 30 min | 12 %       |
| Boil                | Cascade | 30 g   | 30 min | 6 %        |
| Aroma (end of boil) | Citra   | 30 g   | 15 min | 12 %       |
| Boil                | Marynka | 30 g   | 30 min | 10 %       |

## Yeasts

| Name             | Type  | Form  | Amount | Laboratory |
|------------------|-------|-------|--------|------------|
| Saflager W 34/70 | Lager | Slant | 100 ml | Fermentis  |

## Extras

| Type | Name         | Amount | Use for | Time   |
|------|--------------|--------|---------|--------|
| Herb | Trawa cytrus | 20 g   | Boil    | 30 min |