

# Krowiak

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- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **25**
- SRM **45.7**
- Style **Sweet Stout**

## 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 **17.3 liter(s)**
- Total mash volume **23 liter(s)**

## Steps

- Temp **68 C**, Time **70 min**
- Temp **72 C**, Time **15 min**

## Mash step by step

- Heat up **17.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **15 min** at **72C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                            | Amount        | Yield | EBC  |
|-------|---------------------------------|---------------|-------|------|
| Grain | Viking Pale Ale malt            | 2.7 kg (47%)  | 80 %  | 5    |
| Grain | Płatki owsiane                  | 0.5 kg (8.7%) | 60 %  | 3    |
| Grain | Weyerman pszeniczny czekoladowy | 0.5 kg (8.7%) | 65 %  | 1000 |
| Grain | Weyerman Jęczmień palony        | 0.5 kg (8.7%) | 65 %  | 1100 |
| Grain | Viking Pilsner malt             | 1.55 kg (27%) | 82 %  | 4    |

## Hops

| Use for             | Name       | Amount | Time   | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil                | Fuggles    | 8 g    | 60 min | 4.2 %      |
| Boil                | Iunga      | 12 g   | 60 min | 11 %       |
| Aroma (end of boil) | Cascade PL | 26 g   | 15 min | 5.2 %      |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11.5 g | Fermentis  |

## Extras

| Type  | Name    | Amount | Use for | Time   |
|-------|---------|--------|---------|--------|
| Spice | Laktoza | 500 g  | Boil    | 15 min |