

# KOŹLAK

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **27**
- SRM **13.8**
- Style **Traditional Bock**

## 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 **15 %/h**
- Boil size **27.6 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **26.8 liter(s)**

## Steps

- Temp **62 C**, Time **20 min**
- Temp **70 C**, Time **45 min**

## Mash step by step

- Heat up **20.1 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **45 min** at **70C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński        | 3 kg (44.8%)   | 80 %  | 4   |
| Grain | Strzegom Wiedeński         | 1 kg (14.9%)   | 79 %  | 10  |
| Grain | Strzegom Monachijski typ I | 0.5 kg (7.5%)  | 79 %  | 16  |
| Grain | Strzegom Bursztynowy       | 0.7 kg (10.4%) | 70 %  | 49  |
| Grain | Karmelowy Jasny 30EBC      | 0.7 kg (10.4%) | 75 %  | 30  |
| Grain | Płatki owsiane             | 0.4 kg (6%)    | 85 %  | 3   |
| Grain | Jęczmień palony            | 0.1 kg (1.5%)  | 55 %  | 985 |
| Grain | Jęczmień niesłodowany      | 0.3 kg (4.5%)  | 75 %  | 2   |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 26 g   | 60 min | 6.5 %      |
| Boil    | Marynka | 14 g   | 40 min | 8 %        |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                  |       |     |      |           |
|------------------|-------|-----|------|-----------|
| Saflager W 34/70 | Lager | Dry | 23 g | Fermentis |
|------------------|-------|-----|------|-----------|

### Extras

| Type   | Name      | Amount | Use for | Time   |
|--------|-----------|--------|---------|--------|
| Fining | whirlfloc | 1.25 g | Boil    | 10 min |