

# Koźlak dymiony

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **26**
- SRM **14.4**
- Style **Traditional Bock**

## 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 **15 %/h**
- Boil size **27.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.6 liter(s)**
- Total mash volume **28.8 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **67 C**, Time **10 min**
- Temp **71 C**, Time **50 min**

## Mash step by step

- Heat up **21.6 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **10 min** at **67C**
- Keep mash **50 min** at **71C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński        | 2.2 kg (30.6%) | 80 %  | 4   |
| Grain | Strzegom Monachijski typ I | 2.2 kg (30.6%) | 79 %  | 16  |
| Grain | Słód Wędzony Steinbach     | 1.7 kg (23.6%) | 80 %  | 5   |
| Grain | Biscuit Malt               | 0.4 kg (5.6%)  | 79 %  | 45  |
| Grain | Viking melanoidynowy       | 0.3 kg (4.2%)  | 75 %  | 60  |
| Grain | Weyermann Caramunich 3     | 0.2 kg (2.8%)  | 76 %  | 150 |
| Grain | Caraaroma                  | 0.2 kg (2.8%)  | 78 %  | 400 |

## Hops

| Use for | Name                  | Amount | Time   | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil    | Hallertau Mittelfruh  | 25 g   | 60 min | 4.9 %      |
| Boil    | Lublin (Lubelski)     | 40 g   | 60 min | 4 %        |
| Boil    | Saaz (Czech Republic) | 10 g   | 5 min  | 4 %        |