

#08 Koźlak

- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **21**
- SRM **14.5**
- Style **Traditional Bock**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **0 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.4 liter(s)**
- Total mash volume **28.6 liter(s)**

Steps

- Temp **55 C**, Time **10 min**
- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **35 min**
- Temp **76 C**, Time **15 min**

Mash step by step

- Heat up **21.4 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **60 min** at **64C**
- Keep mash **35 min** at **72C**
- Keep mash **15 min** at **76C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------------|----------------|--------|-----|
| Grain | Słodownia Strzegom - pilzneński | 4 kg (55.9%) | 80 % | 3 |
| Grain | Słodownia Strzegom - monachijski I | 2 kg (28%) | 79 % | 12 |
| Grain | Słodownia Strzegom - karmelowy 600 | 0.1 kg (1.4%) | 69 % | 600 |
| Grain | Caramunich Malt | 0.25 kg (3.5%) | 71.7 % | 110 |
| Grain | Caramel/Crystal Malt - 10L | 0.25 kg (3.5%) | 75 % | 200 |
| Grain | Słodownia Strzegom - karmelowy 150 | 0.25 kg (3.5%) | 76 % | 150 |
| Grain | Malteurop - pszeniczny | 0.3 kg (4.2%) | 80 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Marynka | 15 g | 60 min | 9.5 % |
| Boil | Lublin (Lubelski) | 15 g | 20 min | 4 % |

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|------|-----------|------|--------|-------|
| Boil | Tradition | 15 g | 50 min | 5.5 % |
|------|-----------|------|--------|-------|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------|-------|---------|--------|------------|
| Saflager W34/70 | Lager | Culture | 340 g | --- |