

Kozi Laczek

- Gravity **22.7 BLG**
- ABV **10.3 %**
- IBU **25**
- SRM **13.1**
- Style **Doppelbock**

Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **6 %**
- Size with trub loss **17 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **19.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Steps

- Temp **66 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **20 min** at **66C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **5.7 liter(s)** of **76C** water or to achieve **19.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|-------|-----|
| Grain | Strzegom Wiedeński | 3 kg (42.9%) | 79 % | 10 |
| Grain | Strzegom Monachijski typ I | 1 kg (14.3%) | 79 % | 16 |
| Grain | Strzegom Monachijski typ II | 1 kg (14.3%) | 79 % | 22 |
| Grain | Wędzony bukiem Viking Malt | 1 kg (14.3%) | 82 % | 10 |
| Grain | Biscuit Malt | 0.5 kg (7.1%) | 79 % | 45 |
| Grain | Melanoiden Malt | 0.5 kg (7.1%) | 80 % | 39 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Marynka | 24 g | 50 min | 10 % |
| Aroma (end of boil) | Lublin (Lubelski) | 15 g | 10 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|-------|------|--------|------------|
| Saflager W 34/70 | Lager | Dry | 11 g | Fermentis |