

Kozlak30a

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **21**
- SRM **18.9**
- Style **Traditional Bock**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **38 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **30.8 liter(s)**
- Total mash volume **41 liter(s)**

Steps

- Temp **55 C**, Time **10 min**
- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **35 min**
- Temp **76 C**, Time **15 min**

Mash step by step

- Heat up **30.8 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **60 min** at **63C**
- Keep mash **35 min** at **72C**
- Keep mash **15 min** at **76C**
- Sparge using **17.5 liter(s)** of **76C** water or to achieve **38 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | Pilzneński | 5 kg (48.8%) | 81 % | 4 |
| Grain | Monachijski | 3 kg (29.3%) | 80 % | 16 |
| Grain | Strzegom Wiedeński | 1 kg (9.8%) | 79 % | 10 |
| Grain | Strzegom Karmel 300 | 0.25 kg (2.4%) | 70 % | 299 |
| Grain | Weyermann - Caraamber | 0.25 kg (2.4%) | 75 % | 65 |
| Grain | Weyermann Caramunich 3 | 0.25 kg (2.4%) | 76 % | 150 |
| Grain | Strzegom Karmel 600 | 0.25 kg (2.4%) | 68 % | 601 |
| Grain | Strzegom Karmel 300 | 0.25 kg (2.4%) | 70 % | 299 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Marynka | 30 g | 50 min | 10 % |
| Aroma (end of boil) | Lublin (Lubelski) | 30 g | 15 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|-------|------|---------|------------|
| Saflager W 34/70 | Lager | Dry | 17.25 g | Fermentis |