

Kozlak

- Gravity **17.1 BLG**
- ABV ---
- IBU **28**
- SRM **18.1**
- Style **Traditional Bock**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **10 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **90 min**
- Evaporation rate **13 %/h**
- Boil size **25.8 liter(s)**

Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **27.6 liter(s)**
- Total mash volume **34.5 liter(s)**

Steps

- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **50 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **27.6 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **20 min** at **64C**
- Keep mash **50 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **5.1 liter(s)** of **76C** water or to achieve **25.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------------|---------------|-------|-----|
| Grain | Briess - Bonlander Munich Malt | 4 kg (58%) | 78 % | 20 |
| Grain | Weyermann - Bohemian Pilsner Malt | 2 kg (29%) | 81 % | 4 |
| Grain | Strzegom Karmel 150 | 0.2 kg (2.9%) | 75 % | 150 |
| Grain | Weyermann - Caraamber | 0.4 kg (5.8%) | 75 % | 65 |
| Grain | Weyermann - Carared | 0.2 kg (2.9%) | 75 % | 45 |
| Grain | Jęczmień palony | 0.1 kg (1.4%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|---------|--------|------------|
| Boil | Marynka | 28.13 g | 60 min | 7.6 % |
| Boil | Lublin (Lubelski) | 33.75 g | 10 min | 5.6 % |

Yeasts

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

| | | | | |
|-----------|-------|-------|--------|-----|
| Lallemand | Lager | Slant | 200 ml | --- |
|-----------|-------|-------|--------|-----|