

koźlak

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **20**
- SRM **8.6**
- Style **Traditional Bock**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.7 liter(s)**
- Total mash volume **27.9 liter(s)**

Steps

- Temp **62 C**, Time **35 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **21.7 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **35 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **10.9 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Monachijski | 3.2 kg (51.6%) | 80 % | 16 |
| Grain | Wędzony bukiem Viking Malt | 2.6 kg (41.9%) | 82 % | 10 |
| Grain | Karmelowy Jasny 30EBC | 0.4 kg (6.5%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil | Tradition | 35 g | 60 min | 5.5 % |
| Boil | Hallertau | 15 g | 10 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------------------------|-------|------|--------|-----------------|
| Mangrove Jack's M84 Bohemian Lager | Lager | Dry | 10 g | Mangrove Jack's |