

BOCK

- Gravity **16.4 BLG**
- ABV ---
- IBU **20**
- SRM **19.9**
- Style **Traditional Bock**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **32.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.7 liter(s)**
- Total mash volume **30.2 liter(s)**

Steps

- Temp **63 C**, Time **10 min**
- Temp **72 C**, Time **50 min**

Mash step by step

- Heat up **22.7 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **10 min** at **63C**
- Keep mash **50 min** at **72C**
- Sparge using **17.5 liter(s)** of **76C** water or to achieve **32.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------|----------------|-------|-----|
| Grain | Monachijski | 4.4 kg (58.3%) | --- % | --- |
| Grain | Wiedeński | 1.9 kg (25.2%) | --- % | --- |
| Grain | Karmelowy | 0.7 kg (9.3%) | --- % | 150 |
| Grain | Karmelowy | 0.15 kg (2%) | --- % | 600 |
| Grain | Melanoidynowy | 0.4 kg (5.3%) | --- % | 80 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------|--------|--------|------------|
| Boil | H. Tradition | 32 g | 70 min | 5 % |
| Boil | H. Tradition | 24 g | 20 min | 5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------|-------|------|--------|------------|
| Saflager s 189 | Lager | Dry | 11.5 g | --- |