

Bock

- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **32**
- SRM **11.7**

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 **15 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **25.2 liter(s)**

Steps

- Temp **63 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **18.9 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **15 min** at **63C**
- Keep mash **45 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	3.5 kg (55.6%)	82 %	4
Grain	Strzegom Monachijski typ I	2 kg (31.7%)	79 %	16
Grain	Strzegom Karmel 150	0.5 kg (7.9%)	75 %	150
Grain	Weyermann - Caraamber	0.2 kg (3.2%)	75 %	65
Grain	Weyermann - Carared	0.1 kg (1.6%)	75 %	45

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Boil	Lublin (Lubelski)	20 g	10 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM30 Bohemska rapsodia	Lager	Liquid	200 ml	Fermentum Mobile