

## #51 Bock!

- Gravity **17.7 BLG**
- ABV **7.6 %**
- IBU **30**
- SRM **12.4**
- Style **Doppelbock**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **28.1 liter(s)**

### Steps

- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **40 min**

### Mash step by step

- Heat up **20.7 liter(s)** of strike water to **71.9C**
- Add grains
- Keep mash **20 min** at **64C**
- Keep mash **40 min** at **72C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3 kg (40.6%)	81 %	4
Grain	Strzegom Monachijski typ I	2 kg (27.1%)	79 %	16
Grain	Monachijski Ciemny Steinbach	2 kg (27.1%)	100 %	30
Grain	Strzegom Karmel 300	0.191 kg (2.6%)	70 %	299
Grain	Karmelowy Jasny 30EBC	0.2 kg (2.7%)	75 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Northern Brewer	40 g	60 min	8.1 %
Whirlpool	Northern Brewer	60 g	5 min	8.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Jazda Bockiem	Lager	Slant	2000 ml	?