

## Bock beta-0.1

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- Gravity **17.5 BLG**
- ABV ---
- IBU **28**
- SRM **10.4**
- Style **Doppelbock**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **26.9 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.4 liter(s)**
- Total mash volume **28.8 liter(s)**

### Steps

- Temp **50 C**, Time **20 min**
- Temp **64 C**, Time **20 min**
- Temp **73 C**, Time **40 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **22.4 liter(s)** of strike water to **54.3C**
- Add grains
- Keep mash **20 min** at **50C**
- Keep mash **20 min** at **64C**
- Keep mash **40 min** at **73C**
- Keep mash **0 min** at **78C**
- Sparge using **10.9 liter(s)** of **76C** water or to achieve **26.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3.5 kg (54.7%)	80 %	4
Grain	Strzegom Monachijski typ I	2.6 kg (40.6%)	79 %	16
Grain	Karmelowy Czerwony	0.3 kg (4.7%)	75 %	59

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tettnanger	85 g	90 min	3 %
Boil	Tettnanger	15 g	10 min	3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-23	Lager	Dry	23 g	Fermentis Division of S.I.Lesaffre

### Extras

Type	Name	Amount	Use for	Time
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Fining	Mech irlandzki	3 g	Boil	10 min
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