

# Bock

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **25**
- SRM **21.1**
- Style **Traditional Bock**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **24.5 liter(s)**

## Steps

- Temp **64 C**, Time **25 min**
- Temp **72 C**, Time **45 min**

## Mash step by step

- Heat up **17.5 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **25 min** at **64C**
- Keep mash **45 min** at **72C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	3 kg (42.9%)	79 %	16
Grain	Strzegom Wiedeński	2 kg (28.6%)	79 %	10
Grain	Viking melanoidynowy	1 kg (14.3%)	75 %	60
Grain	Strzegom Monachijski typ II	0.5 kg (7.1%)	79 %	22
Grain	Strzegom Czekoladowy jasny	0.5 kg (7.1%)	68 %	400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Spalt	30 g	60 min	5.5 %
Boil	Spalt	25 g	30 min	5.5 %
Aroma (end of boil)	Spalt	20 g	0 min	5.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM31 Bawarska Dolina	Lager	Slant	300 ml	Fermentum Mobile