

## #25

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **32**
- SRM **6.7**
- Style **Traditional Bock**

### 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 **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

### Steps

- Temp **47 C**, Time **15 min**
- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **13.5 liter(s)** of strike water to **51.5C**
- Add grains
- Keep mash **15 min** at **47C**
- Keep mash **20 min** at **62C**
- Keep mash **20 min** at **72C**
- Sparge using **18.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	2 kg (36.4%)	79 %	10
Grain	Grodziski pszeniczny wędzony dębem	0.5 kg (9.1%)	80 %	3
Dry Extract	WES ekstrakt słodowy jasny	1 kg (18.2%)	80 %	---
Grain	Strzegom Monachijski typ II	2 kg (36.4%)	79 %	22

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Herkules	15 g	60 min	20 %
Aroma (end of boil)	Tradition	15 g	10 min	6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
us-33	Ale	Dry	11.5 g	---