

## 60 Doppelbock

- Gravity **21.8 BLG**
- ABV **9.8 %**
- IBU **25**
- SRM **18.3**
- Style **Doppelbock**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **13.8 liter(s)**

### Mash information

- Mash efficiency **71 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

### Steps

- Temp **62 C**, Time **20 min**
- Temp **99 C**, Time **1 min**
- Temp **67 C**, Time **20 min**
- Temp **99 C**, Time **1 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **15 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **20 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **99C**
- Keep mash **1 min** at **99C**
- Sparge using **3.8 liter(s)** of **76C** water or to achieve **13.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski typ II 20-25 EBC Weyermann	3 kg (60%)	80 %	25
Grain	Strzegom Pilzneński	1.5 kg (30%)	80 %	4
Grain	Słód Caramunich Typ II Weyermann	0.5 kg (10%)	73 %	120

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	13 g	60 min	13.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast Staro Prague 2782	Lager	Slant	200 ml	Fermentis