

## 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<br>20-25 EBC<br>Weyermann | 3 kg (60%)   | 80 %  | 25  |
| Grain | Strzegom Pilzneński                          | 1.5 kg (30%) | 80 %  | 4   |
| Grain | Słód Caramunich<br>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<br>Prague 2782 | Lager | Slant | 200 ml | Fermentis  |