

#077 Doppelbock

- Gravity **19.1 BLG**
- ABV **8.3 %**
- IBU **24**
- SRM **21**
- Style **Doppelbock**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **11.5 %/h**
- Boil size **25.6 liter(s)**

Mash information

- Mash efficiency **68 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **23 liter(s)**
- Total mash volume **31.2 liter(s)**

Steps

- Temp **52 C**, Time **20 min**
- Temp **62 C**, Time **20 min**
- Temp **720 C**, Time **10 min**
- Temp **1000 C**, Time **20 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **23 liter(s)** of strike water to **57.7C**
- Add grains
- Keep mash **20 min** at **52C**
- Keep mash **20 min** at **62C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Keep mash **10 min** at **720C**
- Keep mash **20 min** at **1000C**
- Sparge using **10.8 liter(s)** of **76C** water or to achieve **25.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--|----------------|-------|------|
| Grain | Monachijski typ II 20-25 EBC Weyermann | 6.2 kg (75.6%) | 80 % | 20 |
| Grain | Strzegom Pilzneński | 1.5 kg (18.3%) | 80 % | 4 |
| Grain | Słód Caramunich Typ II Weyermann | 0.4 kg (4.9%) | 73 % | 120 |
| Grain | Carafa III | 0.1 kg (1.2%) | 70 % | 1400 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------------------|--------|--------|------------|
| Boil | Magnum | 15 g | 60 min | 11.5 % |
| Boil | Hallertau Mittelfruh | 30 g | 20 min | 3.8 % |
| Boil | Hallertau Mittelfruh | 20 g | 10 min | 3.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|-------------|-------------|---------------|-------------------|
| Saflager W 34/70 | Lager | Slant | 1000 ml | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|---------------------|---------------|----------------|-------------|
| Fining | whirfloc T | 1.25 g | Boil | 10 min |
| Other | pożywka dla drożdży | 10 g | Boil | 10 min |