

Kozlak Dubeltowy

- Gravity **22.5 BLG**
- ABV **10.2 %**
- IBU **25**
- SRM **26.9**
- Style **Doppelbock**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **100 min**
- Evaporation rate **13 %/h**
- Boil size **17.3 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.6 liter(s) / kg**
- Mash size **24.1 liter(s)**
- Total mash volume **30.8 liter(s)**

Steps

- Temp **63 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **24.1 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **20 min** at **63C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **-0.1 liter(s)** of **76C** water or to achieve **17.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--|----------------|--------|------|
| Grain | Monachijski typ II 20-25 EBC Weyermann | 3 kg (44.8%) | 80 % | 20 |
| Grain | BESTMALZ - Best Minich | 1.2 kg (17.9%) | 80.5 % | 16 |
| Grain | Pilzneński | 1.5 kg (22.4%) | 81 % | 4 |
| Grain | Caramunich® typ I | 0.4 kg (6%) | 73 % | 80 |
| Grain | Weyermann Caramunich 3 | 0.25 kg (3.7%) | 76 % | 150 |
| Grain | BESTMALZ - Best Melanoidin Light | 0.25 kg (3.7%) | 75 % | 50 |
| Grain | Weyermann - Carafa III Special | 0.1 kg (1.5%) | 5 % | 1300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------------------|--------|--------|------------|
| Boil | lunga | 20 g | 60 min | 10.3 % |
| Aroma (end of boil) | Hallertauer Tradition | 30 g | 0 min | 5.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------------------|-------------|-------------|---------------|-------------------|
| WLP833 - German Bock Lager Yeast | Lager | Slant | 250 ml | White Labs |