

Bolek podòjny AGENT

- Gravity **19.8 BLG**
- ABV **8.7 %**
- IBU **23**
- SRM **22.7**
- Style **Doppelbock**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **75 min**
- Evaporation rate **15 %/h**
- Boil size **31.8 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **35.4 liter(s)**
- Total mash volume **45.8 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **35.4 liter(s)** of strike water to **70.5C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **6.8 liter(s)** of **76C** water or to achieve **31.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|--------|-----|
| Grain | Briess - Munich Malt 10L | 4.5 kg (43.3%) | 77 % | 20 |
| Grain | Briess - Pilsen Malt | 2.5 kg (24%) | 80.5 % | 2 |
| Grain | Briess - Vienna Malt | 1.5 kg (14.4%) | 77.5 % | 7 |
| Grain | Caramunich® typ I | 0.45 kg (4.3%) | 73 % | 80 |
| Grain | Caraamber | 0.23 kg (2.2%) | 75 % | 59 |
| Grain | Weyermann - Carapils | 0.23 kg (2.2%) | 78 % | 4 |
| Grain | Special w malt | 0.23 kg (2.2%) | 65.2 % | 300 |
| Grain | Weyermann - Melanoiden Malt | 0.28 kg (2.7%) | 81 % | 53 |
| Grain | Crystal | 0.12 kg (1.2%) | 72 % | 236 |
| Grain | Biscuit Malt | 0.12 kg (1.2%) | 79 % | 45 |
| Grain | Weyermann - Carafa I | 0.12 kg (1.2%) | 70 % | 690 |
| Grain | Briess - Chocolate Malt | 0.12 kg (1.2%) | 60 % | 690 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Premiant | 50 g | 40 min | 5.9 % |
| Boil | Premiant | 55 g | 5 min | 5.9 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------------------|-------|--------|--------|------------|
| WLP838 - Southern German Lager Yeast | Lager | Liquid | 350 ml | White Labs |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|------------------|--------|---------|--------|
| Water Agent | lactic acid | 2.5 g | Mash | 60 min |
| Water Agent | Calcium chloride | 10.4 g | Mash | 60 min |
| Water Agent | Calcium sulphate | 9.3 g | Mash | 60 min |
| Fining | Super Irish Moss | 1 g | Boil | 15 min |