

lager 06.2024

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **29**
- SRM **4.2**
- Style **Dortmunder Export**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **32.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Steps

- Temp **55 C**, Time **10 min**
- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Sparge using **18.6 liter(s)** of **76C** water or to achieve **32.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|---------------|--------|-----|
| Grain | BESTMALZ - Best Pilsen | 1 kg (14.3%) | 80.5 % | 4 |
| Grain | BESTMALZ - Best Pilsen | 5 kg (71.4%) | 80.5 % | 4 |
| Grain | BESTMALZ - Best Vienna | 0.5 kg (7.1%) | 80.5 % | 9 |
| Grain | Bestmalz Carmel Pils | 0.5 kg (7.1%) | 75 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------------------|--------|--------|------------|
| Boil | Marynka | 25 g | 60 min | 10 % |
| Boil | Hallertau Mittelfruh | 20 g | 40 min | 3 % |
| Boil | Hallertau Mittelfruh | 20 g | 20 min | 3 % |
| Aroma (end of boil) | Hallertau Mittelfruh | 20 g | 5 min | 3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------------------------|-------|-------|--------|-----------------|
| Mangrove Jack's M76 Bavarian Lager | Lager | Slant | 450 ml | Mangrove Jack's |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-----------|--------|---------|--------|
| Fining | whirlfloc | 1.25 g | Boil | 10 min |