

Helles

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **22**
- SRM **4.2**
- Style **Munich Helles**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **13.2 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **67 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **71.7C**
- Add grains
- Keep mash **45 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **1.2 liter(s)** of **76C** water or to achieve **13.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Viking Pilsner malt | 2.7 kg (90%) | 82 % | 4 |
| Grain | Weyermann - Carapils | 0.3 kg (10%) | 78 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------------|--------|--------|------------|
| Boil | Marynka | 15 g | 60 min | 7 % |
| Aroma (end of boil) | Spalt spalter | 30 g | 0 min | 2.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|-------|-------|--------|------------|
| Saflager W 34/70 | Lager | Slant | 250 ml | Fermentis |