

Munich Helles

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **22**
- SRM **4.5**
- Style **Munich Helles**

Batch size

- Expected quantity of finished beer **80 liter(s)**
- Trub loss **5 %**
- Size with trub loss **84 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **102.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **57.4 liter(s)**
- Total mash volume **76.6 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **57.4 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **64.4 liter(s)** of **76C** water or to achieve **102.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|-----------------|-------|-----|
| Grain | Strzegom Pilzneński | 15 kg (78.4%) | 80 % | 4 |
| Grain | Strzegom Monachijski typ I | 3.43 kg (17.9%) | 79 % | 16 |
| Grain | Strzegom Pszeniczny | 0.71 kg (3.7%) | 81 % | 6 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil | Junga | 70 g | 60 min | 10 % |
| Boil | Saaz (Czech Republic) | 100 g | 5 min | 3.4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------|-------|-------|-----------|------------------------------------|
| Saflager S-23 | Lager | Slant | 857.14 ml | Fermentis Division of S.I.Lesaffre |