

# Munich Helles

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- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **16**
- SRM **4.5**
- Style **Munich Helles**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

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

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński        | 3.5 kg (77.8%) | 80 %  | 4   |
| Grain | Strzegom Monachijski typ I | 1 kg (22.2%)   | 79 %  | 16  |

## Hops

| Use for | Name            | Amount | Time   | Alpha acid |
|---------|-----------------|--------|--------|------------|
| Boil    | Northern Brewer | 15 g   | 60 min | 9 %        |

## Yeasts

| Name                     | Type  | Form | Amount | Laboratory |
|--------------------------|-------|------|--------|------------|
| Gozdawa German Lager W35 | Lager | Dry  | 10 g   | ---        |