

# Munich helles - Lager jasny

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **17**
- SRM **3.9**
- Style **Munich Helles**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **10.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **76C**
- Sparge using **12 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt | 3 kg (85.7%)   | 82 %  | 4   |
| Grain | Strzegom Wiedeński  | 0.5 kg (14.3%) | 79 %  | 10  |

## Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | Magnat  | 7.5 g  | 60 min | 11.2 %     |
| Aroma (end of boil) | Oktawia | 7.5 g  | 15 min | 7.1 %      |
| Aroma (end of boil) | Oktawia | 22.5 g | 0 min  | 7.1 %      |

## Yeasts

| Name  | Type  | Form | Amount | Laboratory |
|-------|-------|------|--------|------------|
| 34/70 | Lager | Dry  | 10 g   | ---        |