

# FRESH COPPER LAGER

- Gravity **11.9 BLG**
- ABV ---
- IBU **40**
- SRM **7.2**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **16.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **20.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

| Type  | Name                         | Amount        | Yield | EBC |
|-------|------------------------------|---------------|-------|-----|
| Grain | Pilzneński                   | 2 kg (36.4%)  | 81 %  | 4   |
| Grain | Monachijski Ciemny Steinbach | 2 kg (36.4%)  | 80 %  | 30  |
| Grain | Viking Pale Ale malt         | 1 kg (18.2%)  | 80 %  | 5   |
| Grain | Cara-Pils/Dextrine           | 0.5 kg (9.1%) | 72 %  | 4   |

## Hops

| Use for | Name                   | Amount | Time   | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil    | Perle                  | 40 g   | 60 min | 7 %        |
| Boil    | Saaz (Czech Republic)  | 20 g   | 15 min | 4.5 %      |
| Boil    | Hallertau Spalt Select | 20 g   | 15 min | 3.4 %      |
| Boil    | Saaz (Czech Republic)  | 30 g   | 5 min  | 4.5 %      |
| Boil    | Hallertau Spalt Select | 30 g   | 5 min  | 3.4 %      |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                   |       |     |      |           |
|-------------------|-------|-----|------|-----------|
| Fermentis W-34/70 | Lager | Dry | 23 g | fermentis |
|-------------------|-------|-----|------|-----------|

### Extras

| Type   | Name | Amount | Use for | Time   |
|--------|------|--------|---------|--------|
| Fining | mech | 5 g    | Boil    | 15 min |