

# PILS

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **23**
- SRM **2.6**
- Style **Vienna Lager**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.1 liter(s)**
- Boil time **75 min**
- Evaporation rate **15 %/h**
- Boil size **34.2 liter(s)**

## Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **28.5 liter(s)**
- Total mash volume **34.2 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **28.5 liter(s)** of strike water to **55.2C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **34.2 liter(s)** of wort

## Fermentables

| Type  | Name                   | Amount         | Yield  | EBC |
|-------|------------------------|----------------|--------|-----|
| Grain | Briess - Pilsen Malt   | 5 kg (87.7%)   | 80.5 % | 2   |
| Grain | Briess - Carapils Malt | 0.7 kg (12.3%) | 74 %   | 3   |

## Hops

| Use for   | Name         | Amount | Time   | Alpha acid |
|-----------|--------------|--------|--------|------------|
| Boil      | Puławski     | 15 g   | 60 min | 8 %        |
| Whirlpool | Puławski 80* | 45 g   | 30 min | 8 %        |

## Yeasts

| Name          | Type  | Form | Amount | Laboratory |
|---------------|-------|------|--------|------------|
| safale w34/70 | Lager | Dry  | 11.5 g | safale     |

## Extras

| Type   | Name       | Amount | Use for | Time   |
|--------|------------|--------|---------|--------|
| Fining | IRISH MOSS | 5 g    | Boil    | 10 min |