

## Italian pils

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **36**
- SRM **2.7**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **19.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.9 liter(s)**
- Total mash volume **15.3 liter(s)**

### Steps

- Temp **62 C**, Time **30 min**
- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **11.9 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **10.6 liter(s)** of **76C** water or to achieve **19.1 liter(s)** of wort

### Fermentables

| Type  | Name       | Amount        | Yield  | EBC |
|-------|------------|---------------|--------|-----|
| Grain | Heidelberg | 3.4 kg (100%) | 80.5 % | 2   |

### Hops

| Use for | Name                   | Amount | Time   | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil    | Puławski               | 15 g   | 60 min | 8.9 %      |
| Boil    | Tettnanger             | 20 g   | 15 min | 2.5 %      |
| Boil    | Hallertau Spalt Select | 10 g   | 15 min | 3.7 %      |
| Boil    | Hallertau Mittelfruh   | 10 g   | 15 min | 3.1 %      |
| Boil    | Tettnanger             | 15 g   | 5 min  | 2.5 %      |
| Boil    | Hallertau Spalt Select | 20 g   | 5 min  | 3.7 %      |
| Boil    | Hallertau Mittelfruh   | 10 g   | 5 min  | 3.1 %      |

### Yeasts

| Name             | Type  | Form | Amount | Laboratory |
|------------------|-------|------|--------|------------|
| Saflager W 34/70 | Lager | Dry  | 11.5 g | Fermentis  |