

Italian pils

- 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 |