

Pils

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **42**
- SRM **3.5**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **20.5 liter(s)**

Steps

- Temp **45 C**, Time **0 min**
- Temp **52 C**, Time **15 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **15.9 liter(s)** of strike water to **48.6C**
- Add grains
- Keep mash **0 min** at **45C**
- Keep mash **15 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 4 kg (87.9%) | 80 % | 4 |
| Grain | Weyermann - Carapils | 0.4 kg (8.8%) | 78 % | 4 |
| Grain | Weyermann - Acidulated Malt | 0.15 kg (3.3%) | 80 % | 6 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Magnum | 20 g | 60 min | 10.5 % |
| Boil | Tettnang | 20 g | 40 min | 4.5 % |
| Boil | Tettnang | 20 g | 20 min | 4.5 % |
| Boil | Tettnang | 20 g | 7 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|-------|-------|--------|------------|
| Saflager W 34/70 | Lager | Slant | 450 ml | Fermentis |

Extras

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|--------|
| Fining | Mech Irlandzki | 6 g | Boil | 15 min |