

PILS #14

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **38**
- SRM **2.9**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **550 liter(s)**
- Trub loss **5 %**
- Size with trub loss **583 liter(s)**
- Boil time **60 min**
- Evaporation rate **2 %/h**
- Boil size **622.7 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **360.5 liter(s)**
- Total mash volume **463.5 liter(s)**

Steps

- Temp **45 C**, Time **15 min**

Mash step by step

- Heat up **360.5 liter(s)** of strike water to **48.6C**
- Add grains
- Keep mash **15 min** at **45C**
- Sparge using **365.2 liter(s)** of **76C** water or to achieve **622.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|---------------|--------|-----|
| Grain | Weyermann - Pilsner Malt | 103 kg (100%) | 80.5 % | 3.5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|----------------------|--------|--------|------------|
| Boil | Magnat | 370 g | 60 min | 15.6 % |
| Whirlpool | Tettnanger | 500 g | 15 min | 2.9 % |
| Whirlpool | Perle | 1000 g | 15 min | 6.2 % |
| Whirlpool | Hallertau Mittelfruh | 1500 g | 15 min | 3.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------------|-------|--------|---------|------------|
| WLP830 - German Lager Yeast | Lager | Liquid | 4000 ml | White Labs |