

German pils

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **44**
- SRM **4**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.3 liter(s)**
- Total mash volume **23.5 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **18.3 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **76C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------------|-----------------|-------|-----|
| Grain | Weyermann - Bohemian Pilsner Malt | 5.04 kg (96.4%) | 81 % | 4 |
| Grain | Weyermann - Acidulated Malt | 0.06 kg (1.2%) | 80 % | 6 |
| Grain | Melanoiden Malt | 0.12 kg (2.4%) | 80 % | 39 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------------------|---------|----------|------------|
| Boil | magnum | 31.11 g | 60 min | 12.7 % |
| Boil | Hallertau Mittelfruh | 31.11 g | 10 min | 3.4 % |
| Aroma (end of boil) | Saaz (Czech Republic) | 30 g | 0 min | 4.5 % |
| Dry Hop | Hallertau Mittelfruh | 31.11 g | 3 day(s) | 3.4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------------|-------|--------|------------|------------|
| 2007 Pilsen Lager | Lager | Liquid | 2777.78 ml | Wyeast |