

German Pils

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **33**
- SRM **3.5**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **23.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.8 liter(s)**

Steps

- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **12.6 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **23.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|---------------|--------|-----|
| Grain | BESTMALZ - Best Pilsen | 4 kg (95.2%) | 80.5 % | 4 |
| Grain | Chit Malt | 0.2 kg (4.8%) | 50 % | 2 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|-----------------------|--------|--------|------------|
| Boil | Saaz (Czech Republic) | 10 g | 80 min | 4.5 % |
| Boil | Saaz (Czech Republic) | 30 g | 30 min | 4.5 % |
| Boil | Hallertau Mittelfruh | 20 g | 30 min | 3 % |
| Boil | Saaz (Czech Republic) | 10 g | 5 min | 4.5 % |
| Boil | Hallertau Mittelfruh | 20 g | 5 min | 3 % |
| Whirlpool | Tomyski | 50 g | 15 min | 2.8 % |
| Whirlpool | Hallertau Mittelfruh | 10 g | 15 min | 3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|-----------|-------|-----|------|------|
| Novalager | Lager | Dry | 11 g | Iall |
|-----------|-------|-----|------|------|