

Niemiecki Pilsner

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **39**
- SRM **3.1**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **28.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19.3 liter(s)**

Steps

- Temp **50 C**, Time **20 min**
- Temp **62 C**, Time **30 min**
- Temp **70 C**, Time **30 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **54.3C**
- Add grains
- Keep mash **20 min** at **50C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **70C**
- Sparge using **18.1 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|---------------|-------|-----|
| Grain | Viking Pilsner malt | 4.3 kg (100%) | 90 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Tettnang | 70 g | 90 min | 3.7 % |
| Boil | Tettnang | 20 g | 45 min | 3.7 % |
| Boil | Tettnang | 10 g | 15 min | 3.7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|-------|------|--------|------------|
| Saflager W 34/70 | Lager | Dry | 11.5 g | Fermentis |