

Pils niemiecki

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **29**
- SRM **3.2**
- 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 **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

Steps

- Temp **55 C**, Time **5 min**
- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|-------------|-------|-----|
| Grain | Słód Pilznieński (Belgia) | 5 kg (100%) | 81 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------------------|--------|--------|------------|
| Boil | hallertauer taurus | 15 g | 50 min | 15.8 % |
| Boil | Saaz (Czech Republic) | 10 g | 15 min | 4 % |
| Aroma (end of boil) | Hallertau Blanc | 10 g | 5 min | 7.4 % |
| Aroma (end of boil) | Saaz (Czech Republic) | 10 g | 5 min | 4 % |
| Whirlpool | Saaz (Czech Republic) | 10 g | 0 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|-------|------|--------|------------|
| fermentis W34/70 | Lager | Dry | 11.5 g | --- |