

Strong Pils Niemiecki (24)

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **29**
- SRM **5.2**
- 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 **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.2 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.2 liter(s)**
- Total mash volume **27.2 liter(s)**

Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **25 min**

Mash step by step

- Heat up **21.2 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **25 min** at **72C**
- Sparge using **9.1 liter(s)** of **76C** water or to achieve **24.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Pilzneński | 5 kg (82.6%) | 81 % | 4 |
| Grain | Weyermann - Carapils | 0.5 kg (8.3%) | 78 % | 4 |
| Grain | Strzegom Wiedeński | 0.5 kg (8.3%) | 79 % | 10 |
| Grain | crystal | 0.05 kg (0.8%) | 80 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------------------|--------|--------|------------|
| Boil | Marynka | 20 g | 60 min | 8 % |
| Boil | Saaz (Czech Republic) | 15 g | 60 min | 2.5 % |
| Boil | Hallertau Tradition | 20 g | 20 min | 6 % |
| Aroma (end of boil) | Tettnang | 15 g | 0 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------------|-------|-------|--------|------------------|
| FM30 Bohemska rapsodia | Lager | Slant | 250 ml | Fermentum Mobile |