

Pils Niemiecki

- Gravity **13.3 BLG**
- ABV ---
- IBU **27**
- SRM **4.7**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.3 liter(s)**
- Total mash volume **24.4 liter(s)**

Steps

- Temp **55 C**, Time **10 min**
- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **20 min**

Mash step by step

- Heat up **18.3 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **20 min** at **76C**
- Sparge using **19.5 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński | 5 kg (82%) | 80 % | 4 |
| Grain | Weyermann - Carapils | 0.5 kg (8.2%) | 78 % | 4 |
| Grain | Weyermann - Acidulated Malt | 0.1 kg (1.6%) | 80 % | 6 |
| Grain | Strzegom Wiedeński | 0.5 kg (8.2%) | 79 % | 10 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|-----------|--------|----------|------------|
| Boil | Magnum | 20 g | 60 min | 13 % |
| Boil | saphir | 20 g | 15 min | 2.7 % |
| Whirlpool | Tradition | 20 g | 30 min | 6 % |
| Dry Hop | Saphir | 20 g | 5 day(s) | 2.7 % |
| Boil | Tradition | 20 g | 0 min | 6 % |

Yeasts

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

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|-------------------------|-------|--------|--------|------------------|
| FM31 Bawarska Dolina | Lager | Liquid | 200 ml | Fermentum Mobile |
|-------------------------|-------|--------|--------|------------------|