

Pils

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **47**
- SRM **3.7**
- 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 **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Steps

- Temp **52 C**, Time **15 min**
- Temp **63 C**, Time **25 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **12 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **25 min** at **63C**
- Keep mash **40 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|--------|-----|
| Grain | BESTMALZ - Best Pilsen | 3.5 kg (87.5%) | 80.5 % | 4 |
| Grain | Strzegom Monachijski typ I | 0.5 kg (12.5%) | 79 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Lublin (Lubelski) | 30 g | 10 min | 4 % |
| Boil | Marynka | 40 g | 60 min | 8.8 % |