

Germański najeżdźca

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **33**
- SRM **4.5**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **0 %**
- Size with trub loss **20 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **22 liter(s)**
- Total mash volume **27.5 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **22 liter(s)** of strike water to **67.3C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **8.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|---------------|-------|-----|
| Grain | Weyermann - Pilsner Malt | 5 kg (90.9%) | 81 % | 5 |
| Grain | Weyermann - Carapils | 0.5 kg (9.1%) | 78 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------------------|--------|--------|------------|
| Boil | Marynka | 35 g | 60 min | 8.1 % |
| Boil | Hallertau Mittelfruh | 50 g | 5 min | 3 % |