

## Pils Lutra 2.0

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **40**
- SRM **4.1**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss --- %
- Size with trub loss **15 liter(s)**
- Boil time **80 min**
- Evaporation rate **15 %/h**
- Boil size **19.8 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.8 liter(s)**
- Total mash volume **14.4 liter(s)**

### Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **10.8 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Sparge using **12.6 liter(s)** of **76C** water or to achieve **19.8 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount          | Yield | EBC |
|-------|----------------------------|-----------------|-------|-----|
| Grain | Pilzneński                 | 3.35 kg (93.1%) | 81 %  | 4   |
| Grain | Strzegom Monachijski typ I | 0.25 kg (6.9%)  | 79 %  | 16  |

### Hops

| Use for   | Name                 | Amount | Time   | Alpha acid |
|-----------|----------------------|--------|--------|------------|
| Boil      | Marynka              | 18 g   | 60 min | 8.1 %      |
| Boil      | Marynka              | 10 g   | 5 min  | 8.1 %      |
| Boil      | Hallertau Mittelfruh | 20 g   | 5 min  | 4.8 %      |
| Whirlpool | Hallertau Mittelfruh | 30 g   | 15 min | 4.8 %      |
| Boil      | Centennial           | 4 g    | 60 min | 9.9 %      |