

Próba puls bzc

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **23**
- SRM **4.1**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **42 liter(s)**
- Boil time **80 min**
- Evaporation rate **7 %/h**
- Boil size **49 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **27.1 liter(s)**
- Total mash volume **36.1 liter(s)**

Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **27.1 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **30.9 liter(s)** of **76C** water or to achieve **49 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|-----------------|-------|-----|
| Grain | Pilzneński | 8.55 kg (94.8%) | 81 % | 4 |
| Grain | Karmelowy Jasny 30EBC | 0.47 kg (5.2%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Marynka | 25 g | 80 min | 9.7 % |
| Boil | Marynka | 15 g | 50 min | 9.7 % |
| Aroma (end of boil) | Lublin (Lubelski) | 10 g | 0 min | 4 % |