

Pipa

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **49**
- SRM **10.4**
- Style **English IPA**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **22.4 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **15.6 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **20.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|-------|-----|
| Grain | Briess - Pale Ale Malt | 6 kg (88.2%) | 80 % | 7 |
| Grain | Biscuit Malt | 0.3 kg (4.4%) | 79 % | 45 |
| Grain | Caramel/Crystal Malt - 40L | 0.3 kg (4.4%) | 74 % | 79 |
| Grain | Caramel/Crystal Malt - 120L | 0.2 kg (2.9%) | 72 % | 236 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Pulawski | 60 g | 60 min | 8 % |
| Boil | Lublin (Lubelski) | 40 g | 10 min | 4 % |
| Aroma (end of boil) | Lublin (Lubelski) | 40 g | 1 min | 4 % |