

Full Aroma Hops 1.0(polskie ale)

- Gravity **12.1 BLG**
- ABV ---
- IBU **50**
- SRM **4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **7 %/h**
- Boil size **29.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

Steps

- Temp **40 C**, Time **0 min**
- Temp **61 C**, Time **10 min**
- Temp **71 C**, Time **45 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **42.9C**
- Add grains
- Keep mash **0 min** at **40C**
- Keep mash **10 min** at **61C**
- Keep mash **45 min** at **71C**
- Keep mash **10 min** at **76C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **29.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------|-------------|-------|-----|
| Grain | Pilzneński | 5 kg (100%) | 81 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|----------|------------|
| Boil | Marynka | 34 g | 70 min | 10 % |
| Boil | Lublin (Lubelski) | 30 g | 45 min | 4 % |
| Boil | Lublin (Lubelski) | 15 g | 5 min | 4 % |
| Dry Hop | Lublin (Lubelski) | 45 g | 7 day(s) | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------|------|--------|--------|------------|
| WLP004 - Irish Ale Yeast | Ale | Liquid | 50 ml | White Labs |