

pipa

- Gravity **15.2 BLG**
- ABV ---
- IBU **60**
- SRM **5.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **50 C**, Time **20 min**
- Temp **62 C**, Time **50 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **20 min** at **50C**
- Keep mash **50 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt | 5 kg (92.6%) | 80 % | 5 |
| Sugar | sacharoza | 0.4 kg (7.4%) | --- % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|----------|------------|
| Boil | Marynka | 60 g | 40 min | 10 % |
| Aroma (end of boil) | Lublin (Lubelski) | 30 g | 5 min | 4 % |
| Dry Hop | Lublin (Lubelski) | 30 g | 2 day(s) | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|-------|--------|------------|
| us-05 | Ale | Slant | 100 ml | --- |