

PIPA

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **50**
- SRM **4.5**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **66 C**, Time **90 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **90 min** at **66C**
- Keep mash **1 min** at **78C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|-------------|-------|-----|
| Grain | Viking Pale Ale malt | 6 kg (100%) | 80 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|----------|------------|
| Boil | Magnum | 44 g | 60 min | 10.6 % |
| Boil | Lubelski | 20 g | 5 min | 3.8 % |
| Boil | Premiant | 10 g | 5 min | 8.2 % |
| Boil | Sladek | 10 g | 5 min | 6.2 % |
| Dry Hop | Lubelski | 30 g | 4 day(s) | 3.8 % |
| Dry Hop | Premiant | 30 g | 4 day(s) | 8.2 % |
| Dry Hop | Sladek | 30 g | 4 day(s) | 6.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| us-05 | Ale | Dry | 11.5 g | --- |