

## HIPA #1

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **41**
- SRM **7.1**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **0 %**
- Size with trub loss **15.4 liter(s)**
- Boil time **45 min**
- Evaporation rate **12 %/h**
- Boil size **19.3 liter(s)**

### Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

### Mash step by step

- Heat up **12.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **75C**
- Sparge using **10.7 liter(s)** of **76C** water or to achieve **19.3 liter(s)** of wort

### Fermentables

| Type  | Name          | Amount         | Yield   | EBC |
|-------|---------------|----------------|---------|-----|
| Grain | Pale Ale      | 3.3 kg (76.7%) | 74.84 % | 13  |
| Grain | Oats, Flaked  | 0.5 kg (11.6%) | 80 %    | 4   |
| Grain | Wheat, Flaked | 0.5 kg (11.6%) | 77 %    | 7   |

### Hops

| Use for | Name             | Amount | Time   | Alpha acid |
|---------|------------------|--------|--------|------------|
| Boil    | Amarillo         | 10 g   | 25 min | 9.2 %      |
| Boil    | Cascade          | 10 g   | 25 min | 5.5 %      |
| Boil    | Citra            | 10 g   | 25 min | 12 %       |
| Boil    | Mosaic (HBC 369) | 10 g   | 25 min | 12.25 %    |
| Boil    | Amarillo         | 10 g   | 10 min | 9.2 %      |
| Boil    | Mosaic (HBC 369) | 15 g   | 0 min  | 12.25 %    |
| Boil    | Amarillo         | 10 g   | 0 min  | 9.2 %      |
| Boil    | Cascade          | 10 g   | 0 min  | 5.5 %      |
| Boil    | Citra            | 10 g   | 0 min  | 12 %       |

### Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                         |     |        |        |                  |
|-------------------------|-----|--------|--------|------------------|
| FM55 Zielone<br>wzgórze | Ale | Liquid | 500 ml | Fermentum mobile |
|-------------------------|-----|--------|--------|------------------|

### Extras

| Type        | Name                     | Amount | Use for | Time   |
|-------------|--------------------------|--------|---------|--------|
| Water Agent | Siarczan Magnezu (MgSO4) | 5.23 g | Mash    | 60 min |
| Water Agent | Phosphoric Acid 85%      | 3 g    | Mash    | 60 min |
| Water Agent | Gips (Calcium Sulfate)   | 2.3 g  | Mash    | 60 min |
| Water Agent | Sól                      | 0.28 g | Mash    | 60 min |
| Water Agent | Siarczan Magnezu (MgSO4) | 4.78 g | Mash    | 60 min |
| Water Agent | Gips (Calcium Sulfate)   | 2.1 g  | Mash    | 60 min |
| Water Agent | Sól                      | 0.26 g | Mash    | 60 min |