

## Micro PA - 5

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **42**
- SRM **4.4**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **32.4 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

### Steps

- Temp **55 C**, Time **1 min**
- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **19.3 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **1 min** at **55C**
- Keep mash **60 min** at **68C**
- Keep mash **1 min** at **76C**
- Sparge using **18.6 liter(s)** of **76C** water or to achieve **32.4 liter(s)** of wort

### Fermentables

| Type  | Name          | Amount         | Yield | EBC |
|-------|---------------|----------------|-------|-----|
| Grain | Pale Ale Best | 4.5 kg (81.8%) | 80 %  | 6   |
| Grain | Wheat, Flaked | 0.6 kg (10.9%) | 77 %  | 4   |
| Grain | Carahell Best | 0.2 kg (3.6%)  | 75 %  | 30  |
| Grain | Carapils Best | 0.2 kg (3.6%)  | 75 %  | 5   |

### Hops

| Use for    | Name      | Amount | Time   | Alpha acid |
|------------|-----------|--------|--------|------------|
| First Wort | Simcoe    | 1 g    | 60 min | 13.3 %     |
| Whirlpool  | Citra     | 30 g   | 15 min | 13.9 %     |
| Whirlpool  | Mosaic    | 30 g   | 15 min | 11.6 %     |
| Whirlpool  | Simcoe    | 30 g   | 15 min | 13.3 %     |
| Whirlpool  | Amarillo  | 30 g   | 15 min | 7.4 %      |
| Whirlpool  | El Dorado | 30 g   | 15 min | 14 %       |

### Yeasts

| Name                          | Type | Form   | Amount | Laboratory  |
|-------------------------------|------|--------|--------|-------------|
| Wyeast - 1728<br>Scottish Ale | Ale  | Liquid | 100 ml | Wyeast Labs |

## Extras

| Type   | Name    | Amount | Use for | Time   |
|--------|---------|--------|---------|--------|
| Flavor | Laktoza | 200 g  | Boil    | 10 min |