

# Mango IPA Warka #1

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **25**
- SRM **3.9**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.7 liter(s)**
- Total mash volume **27.9 liter(s)**

## Steps

- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **21.7 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **29.9 liter(s)** of wort

## Fermentables

| Type  | Name                   | Amount         | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | Pilzneński Viking Male | 3 kg (48.4%)   | 80 %  | 4   |
| Grain | Pszeniczny Viking Male | 1 kg (16.1%)   | 85 %  | 4   |
| Grain | Płatki pszeniczne      | 0.5 kg (8.1%)  | 60 %  | 3   |
| Grain | Płatki owsiane         | 0.7 kg (11.3%) | 60 %  | 3   |
| Grain | Viking Pale Ale malt   | 1 kg (16.1%)   | 80 %  | 5   |

## Hops

| Use for             | Name       | Amount | Time     | Alpha acid |
|---------------------|------------|--------|----------|------------|
| Boil                | Citra      | 22 g   | 60 min   | 12 %       |
| Aroma (end of boil) | Sabro      | 30 g   | 0 min    | 15 %       |
| Aroma (end of boil) | Vic Secret | 25 g   | 0 min    | 16.3 %     |
| Dry Hop             | Sabro      | 20 g   | 7 day(s) | 15 %       |
| Dry Hop             | Citra      | 20 g   | 7 day(s) | 12 %       |
| Dry Hop             | Citra      | 10 g   | 3 day(s) | 12 %       |
| Dry Hop             | Sabro      | 15 g   | 3 day(s) | 15 %       |
| Dry Hop             | Vic Secret | 20 g   | 3 day(s) | 16.3 %     |

## Yeasts

| Name                 | Type | Form  | Amount | Laboratory       |
|----------------------|------|-------|--------|------------------|
| FM55 Zielone Wzgórze | Ale  | Slant | 115 ml | Fermentum Mobile |

## Extras

| Type   | Name    | Amount | Use for   | Time     |
|--------|---------|--------|-----------|----------|
| Flavor | Mango   | 1200 g | Secondary | 7 day(s) |
| Other  | Laktoza | 1000 g | Boil      | 45 min   |