

# Mango Milkshake IPA

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **50**
- SRM **3.5**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **60 liter(s)**
- Trub loss **5 %**
- Size with trub loss **63 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **77 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **39 liter(s)**
- Total mash volume **52 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **39 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **51 liter(s)** of **76C** water or to achieve **77 liter(s)** of wort

## Fermentables

| Type  | Name       | Amount        | Yield | EBC |
|-------|------------|---------------|-------|-----|
| Grain | Pilzneński | 12 kg (92.3%) | 81 %  | 4   |
| Grain | Żytni      | 1 kg (7.7%)   | 85 %  | 8   |

## Hops

| Use for | Name                   | Amount | Time     | Alpha acid |
|---------|------------------------|--------|----------|------------|
| Boil    | Columbus/Tomahawk/Zeus | 60 g   | 60 min   | 14.6 %     |
| Boil    | Columbus/Tomahawk/Zeus | 40 g   | 30 min   | 14.6 %     |
| Dry Hop | Mosaic                 | 50 g   | 7 day(s) | 10 %       |
| Dry Hop | Simcoe                 | 100 g  | 7 day(s) | 13.2 %     |
| Dry Hop | Citra                  | 100 g  | 7 day(s) | 12 %       |

## Yeasts

| Name         | Type | Form | Amount  | Laboratory |
|--------------|------|------|---------|------------|
| Safale US-05 | Ale  | Dry  | 20.63 g | Fermentis  |

## Extras

| Type   | Name        | Amount | Use for   | Time     |
|--------|-------------|--------|-----------|----------|
| Flavor | Mango puree | 4500 g | Secondary | 7 day(s) |