

# Orange milkshake IPA

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **26**
- SRM **4.6**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **17.8 liter(s)**

## Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **13.8 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

## Fermentables

| Type  | Name                   | Amount          | Yield | EBC |
|-------|------------------------|-----------------|-------|-----|
| Grain | Briess - Pale Ale Malt | 3.43 kg (86.7%) | 78 %  | 7   |
| Grain | Monachijski            | 0.175 kg (4.4%) | 80 %  | 16  |
| Grain | Pszeniczny             | 0.15 kg (3.8%)  | 85 %  | 4   |
| Grain | Płatki owsiane         | 0.2 kg (5.1%)   | 85 %  | 3   |

## Hops

| Use for             | Name       | Amount | Time     | Alpha acid |
|---------------------|------------|--------|----------|------------|
| Boil                | Marynka    | 15 g   | 60 min   | 9 %        |
| Aroma (end of boil) | Cascade PL | 15 g   | 10 min   | 5.2 %      |
| Whirlpool           | Cascade PL | 20 g   | 30 min   | 5.2 %      |
| Dry Hop             | Cascade PL | 50 g   | 4 day(s) | 5.2 %      |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11 g   | Fermentis  |

## Extras

| Type   | Name                              | Amount | Use for   | Time     |
|--------|-----------------------------------|--------|-----------|----------|
| Flavor | Zest pomarańczowy                 | 35 g   | Boil      | 0 min    |
| Flavor | Zest pomarańczowy                 | 30 g   | Secondary | 7 day(s) |
| Other  | Sok pomarańczowy do refermentacji | 110 g  | Bottling  | ---      |
| Other  | Laktoza                           | 200 g  | Boil      | 0 min    |

## Notes

- W soku jako dodatek waga cukru.  
*Jun 1, 2020, 12:44 PM*