

# Hoppy Sour Ale

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **26**
- SRM **3.5**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.8 liter(s)**
- Total mash volume **10.4 liter(s)**

## Steps

- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **7.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **30 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **10 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount          | Yield | EBC |
|-------|----------------------|-----------------|-------|-----|
| Grain | Viking Pale Ale malt | 1.25 kg (48.1%) | 80 %  | 5   |
| Grain | Strzegom Pilzneński  | 1 kg (38.5%)    | 80 %  | 4   |
| Grain | Oats, Flaked         | 0.25 kg (9.6%)  | 80 %  | 2   |
| Grain | Weyermann - Carapils | 0.1 kg (3.8%)   | 78 %  | 4   |

## Hops

| Use for   | Name             | Amount | Time     | Alpha acid |
|-----------|------------------|--------|----------|------------|
| Boil      | Enigma (AUS)     | 20 g   | 10 min   | 17.2 %     |
| Whirlpool | Enigma (AUS)     | 30 g   | 1 min    | 17.2 %     |
| Dry Hop   | falconers flight | 100 g  | 3 day(s) | 11 %       |

## Yeasts

| Name   | Type | Form  | Amount | Laboratory |
|--------|------|-------|--------|------------|
| wlp644 | Ale  | Slant | 100 ml | White Labs |

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|             |                              |     |      |          |
|-------------|------------------------------|-----|------|----------|
| Water Agent | gips                         | 4 g | Mash | 60 min   |
| Other       | <i>L. bacillus plantarum</i> | 4 g | Mash | 1000 min |