

# Sour Ale

- Gravity **7.6 BLG**
- ABV **2.9 %**
- IBU **18**
- SRM **3.1**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **80 C**, Time **5 min**

## Mash step by step

- Heat up **10.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **80C**
- Sparge using **19.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

| Type  | Name                     | Amount         | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Pilzneński               | 2.7 kg (77.1%) | 81 %  | 4   |
| Grain | Pszeniczny               | 0.7 kg (20%)   | 85 %  | 4   |
| Grain | Karmelowy Jasny<br>30EBC | 0.1 kg (2.9%)  | 75 %  | 30  |

## Hops

| Use for | Name              | Amount | Time     | Alpha acid |
|---------|-------------------|--------|----------|------------|
| Boil    | Lublin (Lubelski) | 35 g   | 60 min   | 4 %        |
| Dry Hop | Cascade           | 50 g   | 7 day(s) | 6 %        |
| Dry Hop | Nelson Sauvín     | 50 g   | 7 day(s) | 11 %       |

## Yeasts

| Name         | Type | Form    | Amount | Laboratory |
|--------------|------|---------|--------|------------|
| Safale US-05 | Ale  | Dry     | 11.5 g | Fermentis  |
| L. Plantarum | Ale  | Culture | 5 g    | ---        |

## Extras

| Type   | Name             | Amount | Use for | Time     |
|--------|------------------|--------|---------|----------|
| Flavor | Sok z grejpfruta | 2000 g | Primary | 7 day(s) |

## Notes

- Zakwaszanie L. Plantarum 48godzin w 33 stopniach  
*Aug 29, 2018, 11:38 PM*