

# Sour Ale

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **19**
- SRM **6**
- Style **Irish Red Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **10.1 liter(s)**
- Total mash volume **14.2 liter(s)**

## Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **10.1 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **19.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt | 3 kg (74.1%)   | 82 %  | 4   |
| Grain | Viking Wheat Malt   | 1 kg (24.7%)   | 83 %  | 5   |
| Grain | Carafa              | 0.05 kg (1.2%) | 70 %  | 664 |

## Hops

| Use for   | Name                | Amount | Time   | Alpha acid |
|-----------|---------------------|--------|--------|------------|
| Boil      | Hallertau Tradition | 30 g   | 50 min | 5 %        |
| Boil      | Hallertau Tradition | 20 g   | 5 min  | 5 %        |
| Whirlpool | Mandarina Bavaria   | 50 g   | 0 min  | 10 %       |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| safe ale 04 | Ale  | Dry  | 11 g   | ---        |

## Notes

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