

# Bitter Styrian

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **31**
- SRM **9.2**
- Style **Standard/Ordinary Bitter**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

## Steps

- Temp **68 C**, Time **70 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **17.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **5 min** at **76C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

| Type  | Name              | Amount        | Yield | EBC |
|-------|-------------------|---------------|-------|-----|
| Grain | Pilzneński        | 5 kg (87.7%)  | 81 %  | 4   |
| Grain | Cara Crystal      | 0.5 kg (8.8%) | 79 %  | 150 |
| Grain | Caramunich® typ I | 0.2 kg (3.5%) | 73 %  | 80  |

## Hops

| Use for             | Name            | Amount | Time   | Alpha acid |
|---------------------|-----------------|--------|--------|------------|
| Boil                | Styrian Golding | 30 g   | 60 min | 3.6 %      |
| Boil                | Amarillo        | 20 g   | 15 min | 9.5 %      |
| Boil                | Citra           | 20 g   | 15 min | 12 %       |
| Aroma (end of boil) | Styrian Golding | 30 g   | 0 min  | 3.6 %      |
| Aroma (end of boil) | Citra           | 30 g   | 0 min  | 12 %       |
| Aroma (end of boil) | Amarillo        | 20 g   | 0 min  | 9.5 %      |

## Yeasts

| Name                       | Type | Form   | Amount  | Laboratory |
|----------------------------|------|--------|---------|------------|
| FM10 O czym szumią wierzby | Ale  | Liquid | 1000 ml | ---        |

## Extras

| Type        | Name      | Amount | Use for | Time   |
|-------------|-----------|--------|---------|--------|
| Fining      | Whirflock | 7 g    | Boil    | 70 min |
| Water Agent | Sól       | 7 g    | Boil    | 70 min |