

# AS

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **42**
- SRM **35.7**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **28.7 liter(s)**

## Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **24.8 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **18.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **28.7 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Pilzneński          | 2.5 kg (40.3%) | 81 %  | 4   |
| Grain | Castle Pale Ale     | 2.5 kg (40.3%) | 80 %  | 8   |
| Grain | Pszeniczny          | 0.3 kg (4.8%)  | 85 %  | 4   |
| Grain | Chocolate Malt (US) | 0.3 kg (4.8%)  | 60 %  | 690 |
| Grain | Jęczmień palony     | 0.3 kg (4.8%)  | 55 %  | 985 |
| Grain | Black (Patent) Malt | 0.3 kg (4.8%)  | 55 %  | 985 |

## Hops

| Use for | Name     | Amount | Time   | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil    | Citra    | 15 g   | 60 min | 12 %       |
| Boil    | Amarillo | 20 g   | 30 min | 9.5 %      |
| Boil    | Sabro    | 15 g   | 10 min | 15 %       |
| Boil    | Amarillo | 15 g   | 10 min | 9.5 %      |

## Yeasts

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale  | Slant | 100 ml | Fermentis  |