

# stout

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **18**
- SRM **27.2**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **45 liter(s)**
- Trub loss **10 %**
- Size with trub loss **49.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **59.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **35.6 liter(s)**
- Total mash volume **46.4 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **20 min**

## Mash step by step

- Heat up **35.6 liter(s)** of strike water to **74.1C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **20 min** at **72C**
- Sparge using **34.6 liter(s)** of **76C** water or to achieve **59.4 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount        | Yield | EBC  |
|-------|-----------------------------|---------------|-------|------|
| Grain | Pilsner (2 Row) Bel         | 9 kg (83.3%)  | 79 %  | 4    |
| Grain | Strzegom Karmel 300         | 0.6 kg (5.6%) | 70 %  | 299  |
| Grain | Strzegom Czekoladowy jasny  | 0.6 kg (5.6%) | 68 %  | 400  |
| Grain | Strzegom Czekoladowy ciemny | 0.4 kg (3.7%) | 68 %  | 1200 |
| Grain | Strzegom pszenica prażona   | 0.1 kg (0.9%) | 70 %  | 1000 |
| Grain | Viking Barwiący             | 0.1 kg (0.9%) | 65 %  | 1400 |

## Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Marynka           | 30 g   | 60 min | 10 %       |
| Boil    | Lublin (Lubelski) | 30 g   | 20 min | 4 %        |

## Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| us-05 | Ale  | Dry  | 11 g   | ---        |

## Extras

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

| Type   | Name    | Amount | Use for | Time   |
|--------|---------|--------|---------|--------|
| Flavor | laktoza | 150 g  | Boil    | 20 min |