

# American Stout

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **50**
- SRM **35.9**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **18.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **100 C**, Time **65 min**

## Mash step by step

- Heat up **12 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **65 min** at **100C**
- Sparge using **10.8 liter(s)** of **76C** water or to achieve **18.8 liter(s)** of wort

## Fermentables

| Type  | Name                           | Amount          | Yield | EBC |
|-------|--------------------------------|-----------------|-------|-----|
| Grain | Strzegom Wiedeński             | 1.5 kg (37.4%)  | 79 %  | 10  |
| Grain | Viking Pale Ale malt           | 0.8 kg (20%)    | 80 %  | 5   |
| Grain | Monachijski                    | 0.46 kg (11.5%) | 80 %  | 16  |
| Grain | Brown Malt (British Chocolate) | 0.4 kg (10%)    | 70 %  | 128 |
| Grain | Caramel/Crystal Malt - 120L    | 0.15 kg (3.7%)  | 72 %  | 236 |
| Grain | Karmelowy Jasny 30EBC          | 0.15 kg (3.7%)  | 75 %  | 30  |
| Grain | Fawcett - Pale Chocolate       | 0.2 kg (5%)     | 71 %  | 600 |
| Grain | Czekoladowy                    | 0.2 kg (5%)     | 60 %  | 788 |
| Grain | Jęczmień palony                | 0.15 kg (3.7%)  | 55 %  | 985 |

## Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | Calypso | 8 g    | 60 min | 14 %       |
| Boil                | Calypso | 10 g   | 20 min | 14 %       |
| Aroma (end of boil) | Calypso | 15 g   | 5 min  | 14 %       |

|           |         |      |          |      |
|-----------|---------|------|----------|------|
| Whirlpool | Calypso | 25 g | 20 min   | 14 % |
| Dry Hop   | Calypso | 42 g | 3 day(s) | 14 % |

## Yeasts

| Name                      | Type | Form  | Amount | Laboratory       |
|---------------------------|------|-------|--------|------------------|
| FM13 Irlandzkie Ciemności | Ale  | Slant | 150 ml | Fermentum Mobile |