

American Stout

- Gravity **14.5 BLG**
- ABV ---
- IBU **49**
- SRM **33**
- 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 **5 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.6 liter(s)**
- Total mash volume **22.2 liter(s)**

Steps

- Temp **66 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **16.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Pilzński | 5 kg (90.1%) | 81 % | 4 |
| Grain | Jęczmień palony | 0.25 kg (4.5%) | 55 % | 985 |
| Grain | Strzegom Karmel 150 | 0.2 kg (3.6%) | 75 % | 150 |
| Grain | Strzegom Czekoladowy ciemny | 0.1 kg (1.8%) | 68 % | 1200 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------|--------|----------|------------|
| Boil | lunga | 42 g | 60 min | 11.6 % |
| Whirlpool | Cascade | 20 g | 60 min | 6 % |
| Whirlpool | Simcoe | 20 g | 60 min | 13.2 % |
| Dry Hop | Cascade | 30 g | 4 day(s) | 6 % |
| Dry Hop | Simcoe | 30 g | 4 day(s) | 13.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|-------|--------|------------------|
| FM52 Amerykański Sen | Ale | Slant | 300 ml | Fermentum Mobile |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|--------------|--------|---------|--------|
| Water Agent | Gips | 5 g | Mash | 60 min |
| Water Agent | Chlorek Sodu | 3 g | Mash | 60 min |