

#038 American Stout

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **70**
- SRM **29.6**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **8 %**
- Size with trub loss **20.5 liter(s)**
- Boil time **65 min**
- Evaporation rate **7 %/h**
- Boil size **26.1 liter(s)**

Mash information

- Mash efficiency **62 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **30.9 liter(s)**
- Total mash volume **38.6 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **30.9 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **78C**
- Sparge using **2.9 liter(s)** of **76C** water or to achieve **26.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 3.2 kg (38.6%) | 80 % | 5 |
| Grain | Viking Pilsner malt | 3 kg (36.2%) | 82 % | 4 |
| Grain | Platki owsiane | 0.6 kg (7.2%) | 85 % | 3 |
| Grain | Weyermann - Chocolate Rye | 0.6 kg (7.2%) | 20 % | 493 |
| Sugar | cukier | 0.56 kg (6.8%) | 100 % | --- |
| Grain | Weyermann - Carafa II | 0.32 kg (3.9%) | 70 % | 837 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------|--------|----------|------------|
| Boil | Simcoe | 30 g | 60 min | 12.7 % |
| Boil | lunga | 15 g | 60 min | 9.4 % |
| Aroma (end of boil) | amarillo | 30 g | 10 min | 8.9 % |
| Aroma (end of boil) | Simcoe | 20 g | 10 min | 12.7 % |
| Aroma (end of boil) | El Dorado | 20 g | 10 min | 11.1 % |
| Dry Hop | Simcoe | 100 g | 3 day(s) | 12.7 % |
| Dry Hop | El Dorado | 30 g | 3 day(s) | 11.1 % |
| Dry Hop | Amarillo | 20 g | 3 day(s) | 8.9 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale | Dry | 23 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------------------|--------|---------|--------|
| Fining | whirfloc T | 1.25 g | Boil | 10 min |
| Other | pożywka dla drożdży Wyeast | 3 g | Boil | 10 min |