

#2_American Stout

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **37**
- SRM **41.3**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **23.4 liter(s)**

Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **18.2 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **77C**
- Sparge using **12.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 2.7 kg (51.9%) | 80 % | 5 |
| Grain | Strzegom Monachijski typ I | 1 kg (19.2%) | 79 % | 16 |
| Grain | Simpsons - Coffee Malt | 0.5 kg (9.6%) | 74 % | 296 |
| Grain | Strzegom Karmel 300 | 0.3 kg (5.8%) | 70 % | 299 |
| Grain | Jęczmień palony | 0.45 kg (8.7%) | 55 % | 985 |
| Grain | Chocolate Malt (US) | 0.25 kg (4.8%) | 60 % | 690 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------|--------|--------|------------|
| Boil | Simcoe | 15 g | 60 min | 13.2 % |
| Aroma (end of boil) | Simcoe | 20 g | 15 min | 13.2 % |
| Whirlpool | Simcoe | 15 g | 0 min | 13.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

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|--------------------------------------|-----|-----|------|-----------------|
| Mangrove Jack's M44 US West Coast | Ale | Dry | 10 g | Mangrove Jack's |
|--------------------------------------|-----|-----|------|-----------------|