

#30 Forest Stout

- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **109**
- SRM **36.3**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **3 %**
- Size with trub loss **20.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **24.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.3 liter(s)**
- Total mash volume **16.4 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **12.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **0 min** at **78C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **24.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|---------------|-------|------|
| Grain | Viking Pale Ale malt | 3 kg (73.2%) | 80 % | 5 |
| Grain | Strzegom Czekoladowy ciemny | 0.2 kg (4.9%) | 68 % | 1200 |
| Grain | Carafa II | 0.2 kg (4.9%) | 70 % | 812 |
| Grain | Jęczmień palony | 0.3 kg (7.3%) | 55 % | 985 |
| Grain | Płatki owsiane | 0.4 kg (9.8%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|----------|------------|
| Boil | Simcoe | 20 g | 60 min | 13.2 % |
| Boil | Simcoe | 10 g | 30 min | 13.2 % |
| Boil | Simcoe | 10 g | 10 min | 13.2 % |
| Boil | Idaho | 10 g | 60 min | 12.3 % |
| Boil | Idaho | 20 g | 30 min | 12.3 % |
| Boil | Idaho | 10 g | 10 min | 12.3 % |
| Boil | Chinook | 20 g | 10 min | 13 % |
| Dry Hop | Simcoe | 10 g | 3 day(s) | 13.2 % |
| Dry Hop | Idaho | 10 g | 3 day(s) | 12.3 % |

| | | | | |
|---------|---------|------|----------|------|
| Dry Hop | Chinook | 80 g | 3 day(s) | 13 % |
|---------|---------|------|----------|------|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale | Slant | 150 ml | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|--------|---------------|--------|---------|--------|
| Flavor | Owoce jałowca | 20 g | Boil | 15 min |