

RYE DRY AMERICAN STOUT

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **50**
- SRM **31.6**
- 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 **22 %/h**
- Boil size **28.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.5 liter(s)**
- Total mash volume **20.6 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **15.5 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **28.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 2 kg (38.8%) | 80 % | 5 |
| Grain | Żytni | 1 kg (19.4%) | 85 % | 8 |
| Grain | Strzegom Monachijski typ II | 0.7 kg (13.6%) | 79 % | 22 |
| Grain | Płatki owsiane | 0.5 kg (9.7%) | 85 % | 3 |
| Grain | Fawcett - Pale Chocolate | 0.3 kg (5.8%) | 71 % | 600 |
| Grain | Pszeniczny | 0.25 kg (4.9%) | 85 % | 4 |
| Grain | Carafa III | 0.25 kg (4.9%) | 70 % | 1034 |
| Grain | Jęczmień palony | 0.15 kg (2.9%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 10 g | 60 min | 15.5 % |
| Boil | Cascade | 15 g | 15 min | 7.7 % |
| Boil | Simcoe | 20 g | 15 min | 11.4 % |
| Boil | Cascade | 35 g | 5 min | 7.7 % |
| Boil | Simcoe | 35 g | 5 min | 11.4 % |
| Dry Hop | Simcoe | 50 g | 7 day(s) | 13.2 % |

| | | | | |
|---------|---------|------|----------|-----|
| Dry Hop | Cascade | 50 g | 7 day(s) | 6 % |
|---------|---------|------|----------|-----|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-------------------|--------|---------|------|
| Water Agent | kreda czy coś tam | 5 g | Mash | --- |