

# Rye American Stout

- Gravity **19.6 BLG**
- ABV **8.6 %**
- IBU **65**
- SRM **40.3**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **26.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **19.4 liter(s)**
- Total mash volume **27.1 liter(s)**

## Steps

- Temp **65 C**, Time **70 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **19.4 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **70 min** at **65C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **26.3 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale           | 4 kg (51.6%)   | 79 %  | 6    |
| Grain | Strzegom Monachijski typ II | 1 kg (12.9%)   | 79 %  | 22   |
| Grain | Żytni                       | 1.5 kg (19.4%) | 85 %  | 8    |
| Grain | Weyermann - Carawheat       | 0.5 kg (6.5%)  | 77 %  | 97   |
| Grain | Strzegom Czekoladowy 1200   | 0.25 kg (3.2%) | 68 %  | 1202 |
| Grain | Jęczmień palony             | 0.25 kg (3.2%) | 55 %  | 985  |
| Grain | Strzegom pszenica prażona   | 0.25 kg (3.2%) | 70 %  | 1000 |

## Hops

| Use for | Name                   | Amount | Time   | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil    | Columbus/Tomahawk/Zeus | 25 g   | 60 min | 15 %       |
| Boil    | Chinook                | 10 g   | 50 min | 10 %       |
| Boil    | Citra                  | 10 g   | 50 min | 12 %       |
| Boil    | Cascade                | 15 g   | 30 min | 5.5 %      |
| Boil    | Mosaic                 | 20 g   | 5 min  | 11.8 %     |

|           |         |      |          |        |
|-----------|---------|------|----------|--------|
| Boil      | Chinook | 30 g | 5 min    | 10 %   |
| Boil      | Cascade | 30 g | 5 min    | 5.5 %  |
| Whirlpool | Mosaic  | 30 g | 1 min    | 11.8 % |
| Whirlpool | Cascade | 30 g | 1 min    | 5.5 %  |
| Dry Hop   | Cascade | 50 g | 4 day(s) | 5.5 %  |
| Dry Hop   | Mosaic  | 50 g | 3 day(s) | 11.8 % |

## Yeasts

| Name  | Type | Form  | Amount | Laboratory |
|-------|------|-------|--------|------------|
| us 05 | Ale  | Slant | 250 ml | ---        |