

#43 American Rye Stout

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **69**
- SRM **39.4**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **50 liter(s)**
- Trub loss **5 %**
- Size with trub loss **52.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **63.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **36 liter(s)**
- Total mash volume **48 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **36 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **75C**
- Sparge using **39.3 liter(s)** of **76C** water or to achieve **63.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|---------|------------------------------|---------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt | 7 kg (53.8%) | 90 % | 7 |
| Grain | Weyermann - Rye Malt | 2 kg (15.4%) | 86 % | 7 |
| Grain | Weyermann - Caramel Rye Malt | 1 kg (7.7%) | 76 % | 175 |
| Grain | Weyermann - Chocolate Malt | 0.5 kg (3.8%) | 76 % | 887 |
| Grain | Żyto palone | 1 kg (7.7%) | 65 % | 985 |
| Grain | Jęczmień palony | 0.5 kg (3.8%) | 65 % | 985 |
| Adjunct | Płatki żytnie | 1 kg (7.7%) | 30 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|----------|------------|
| Boil | Eureka! | 30 g | 60 min | 18 % |
| Boil | Chinook | 30 g | 30 min | 12 % |
| Boil | Eureka! | 70 g | 15 min | 18 % |
| Boil | Chinook | 70 g | 5 min | 12 % |
| Dry Hop | Eureka! | 50 g | 7 day(s) | 18 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------------|------|-------|--------|------------|
| FM13 Irlandzkie Ciemności | Ale | Slant | 300 ml | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|--------|
| Fining | Mech Irlandzki | 10 g | Boil | 15 min |