

Dry stout a'la Guinness

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **37**
- SRM **30.1**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **14.7 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **78C**
- Sparge using **19.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|----------------|--------|-----|
| Grain | Strzegom Pale Ale | 2.3 kg (46.9%) | 79 % | 6 |
| Grain | Mild | 1.2 kg (24.5%) | 80.5 % | 6 |
| Grain | Barley, Flaked | 0.5 kg (10.2%) | 70 % | 4 |
| Grain | Oats, Flaked | 0.1 kg (2%) | 80 % | 2 |
| Grain | Brown Malt (British Chocolate) | 0.1 kg (2%) | 70 % | 128 |
| Grain | Fawcett - Pale Chocolate | 0.1 kg (2%) | 71 % | 600 |
| Grain | Chocolate Malt (UK) | 0.2 kg (4.1%) | 73 % | 887 |
| Grain | Jęczmień palony | 0.4 kg (8.2%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | East Kent Goldings | 50 g | 60 min | 5.1 % |
| Boil | East Kent Goldings | 40 g | 15 min | 5.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------------|------|--------|--------|------------------|
| FM13 Irlandzkie Ciemności | Ale | Liquid | 50 ml | Fermentum Mobile |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|----------------|--------|---------|------|
| Water Agent | Chlorek Wapnia | 10 g | Mash | --- |