

## Stout 2.0

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **20**
- SRM **37.1**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **50 liter(s)**
- Trub loss **5 %**
- Size with trub loss **52.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **5 %/h**
- Boil size **61.8 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **2 liter(s) / kg**
- Mash size **22 liter(s)**
- Total mash volume **33 liter(s)**

### Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **22 liter(s)** of strike water to **80C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **50.8 liter(s)** of **76C** water or to achieve **61.8 liter(s)** of wort

### Fermentables

| Type  | Name                             | Amount         | Yield | EBC |
|-------|----------------------------------|----------------|-------|-----|
| Grain | Weyermann - Pilsner Malt         | 5 kg (45.5%)   | 81 %  | 3   |
| Grain | Caraaroma                        | 0.8 kg (7.3%)  | 78 %  | 400 |
| Grain | Strzegom Czekoladowy jasny       | 1 kg (9.1%)    | 68 %  | 400 |
| Grain | Pszeniczny                       | 1.5 kg (13.6%) | 85 %  | 4   |
| Grain | Barley, Flaked                   | 0.3 kg (2.7%)  | 70 %  | 4   |
| Grain | Płatki pszeniczne                | 0.4 kg (3.6%)  | 85 %  | 3   |
| Grain | Oats, Flaked                     | 0.4 kg (3.6%)  | 80 %  | 2   |
| Grain | Kawowy                           | 0.4 kg (3.6%)  | 74 %  | 296 |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.8 kg (7.3%)  | 73 %  | 900 |
| Grain | Jęczmień palony                  | 0.4 kg (3.6%)  | 55 %  | 985 |

### Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 50 g   | 60 min | 8.8 %      |

### Yeasts

| Name                      | Type | Form  | Amount | Laboratory       |
|---------------------------|------|-------|--------|------------------|
| FM13 Irlandzkie Ciemności | Ale  | Slant | 100 ml | Fermentum Mobile |

### Extras

| Type        | Name            | Amount | Use for | Time   |
|-------------|-----------------|--------|---------|--------|
| Water Agent | Burton Salts    | 5 g    | Mash    | ---    |
| Water Agent | Gips piwowarski | 10 g   | Mash    | 70 min |

### Notes

- Sól pszeniczny czekoladowy zadać przed podgrzaniem do 78 stopni.  
Jęczmień palony wyekstrahować w 1-2 l przegotowanej wody przez 4-12 h w temp. pokojowej  
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