

Chocolate Imperial Milk Stout

- Gravity **22 BLG**
- ABV **9.9 %**
- IBU **89**
- SRM **54.8**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **23.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **32 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **24 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **7.8 liter(s)** of **76C** water or to achieve **23.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|-------|------|
| Grain | Weyermann - Pale Ale Malt | 5 kg (62.5%) | 85 % | 7 |
| Grain | Strzegom Monachijski typ I | 1 kg (12.5%) | 79 % | 16 |
| Grain | Caraaroma | 0.4 kg (5%) | 78 % | 400 |
| Grain | Carafa | 0.4 kg (5%) | 70 % | 664 |
| Grain | Płatki owsiane | 0.5 kg (6.3%) | 85 % | 3 |
| Grain | Jęczmień palony | 0.3 kg (3.8%) | 55 % | 985 |
| Grain | Strzegom Czekoladowy ciemny | 0.4 kg (5%) | 68 % | 1200 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|----------|------------|
| Boil | Warrior | 30 g | 60 min | 15.5 % |
| Boil | Equinox | 30 g | 60 min | 13.1 % |
| Boil | Simcoe | 30 g | 15 min | 13.2 % |
| Dry Hop | Equinox | 30 g | 5 day(s) | 13.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|-------------|-------------|---------------|-------------------|
| Safale S-04 | Ale | Dry | 22 g | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------------|---------------|----------------|-------------|
| Flavor | Laktoza | 500 g | Boil | 15 min |
| Spice | Wanilia | 20 g | Secondary | 14 day(s) |
| Spice | Ziarna kakaowca | 200 g | Secondary | 14 day(s) |
| Spice | Tonka | 15 g | Secondary | 14 day(s) |