

# MOKO - Chocolate milk stout

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- Gravity **17.5 BLG**
- ABV **7.5 %**
- IBU **52**
- SRM **57.3**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.1 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.1 liter(s)**
- Total mash volume **14.8 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **70 C**, Time **30 min**
- Temp **75 C**, Time **1 min**

## Mash step by step

- Heat up **11.1 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **70C**
- Keep mash **1 min** at **75C**
- Sparge using **4.7 liter(s)** of **76C** water or to achieve **12.1 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt        | 2.5 kg (67.6%) | 80 %  | 5    |
| Grain | Płatki żytnie               | 0.6 kg (16.2%) | 85 %  | 3    |
| Grain | Strzegom Czekoladowy ciemny | 0.5 kg (13.5%) | 68 %  | 1200 |
| Grain | Jęczmień palony             | 0.1 kg (2.7%)  | 55 %  | 985  |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Fuggles | 50 g   | 60 min | 5.5 %      |

## Yeasts

| Name                 | Type | Form  | Amount | Laboratory |
|----------------------|------|-------|--------|------------|
| Danstar - Nottingham | Ale  | Slant | 100 ml | Danstar    |

## Extras

| Type  | Name    | Amount | Use for | Time   |
|-------|---------|--------|---------|--------|
| Other | Laktoza | 500 g  | Boil    | 10 min |

|       |                 |      |           |          |
|-------|-----------------|------|-----------|----------|
| Spice | Ziarna kakaowca | 20 g | Secondary | 3 day(s) |
|-------|-----------------|------|-----------|----------|

## Notes

- Ziarna kakaowca zmielić i wymoczyć w wodce przez kilka dni, produkując ekstrakt. Dodać ekstrakt, razem z ziarnem do piwa.  
*Dec 3, 2018, 8:45 PM*