

# Milk Stout

- Gravity **20 BLG**
- ABV ---
- IBU **29**
- SRM **35.9**
- Style **Foreign Extra 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 **27.8 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **28.7 liter(s)**
- Total mash volume **36.4 liter(s)**

## Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **28.7 liter(s)** of strike water to **72.2C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **6.9 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount          | Yield  | EBC  |
|-------|----------------------------|-----------------|--------|------|
| Grain | Castle Malting - Pilsen    | 6.25 kg (71.4%) | 80.5 % | 4    |
| Grain | Strzegom Monachijski typ I | 0.5 kg (5.7%)   | 79 %   | 16   |
| Grain | Carafa III                 | 0.4 kg (4.6%)   | 70 %   | 1034 |
| Grain | Jęczmień palony            | 0.3 kg (3.4%)   | 55 %   | 985  |
| Grain | Castle Cafe Light          | 0.3 kg (3.4%)   | 75.5 % | 250  |
| Sugar | laktoza                    | 1 kg (11.4%)    | 100 %  | 5    |

## Hops

| Use for             | Name                   | Amount | Time   | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil                | Columbus/Tomahawk/Zeus | 20 g   | 60 min | 16.5 %     |
| Aroma (end of boil) | Fuggles                | 25 g   | 10 min | 4.5 %      |
| Aroma (end of boil) | Fuggles                | 25 g   | 5 min  | 4.5 %      |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                       |     |       |        |         |
|-----------------------|-----|-------|--------|---------|
| Danstar - Windsor Ale | Ale | Slant | 100 ml | Danstar |
|-----------------------|-----|-------|--------|---------|

### Extras

| Type | Name    | Amount | Use for | Time   |
|------|---------|--------|---------|--------|
| Herb | laktoza | 0.5 g  | Boil    | 10 min |