

Chocolate stockings

- Gravity **20.2 BLG**
- ABV **8.9 %**
- IBU **14**
- SRM **69.7**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **70 min**
- Evaporation rate **8.5 %/h**
- Boil size **14 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **4.6 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Strzegom Pilzneński | 3.8 kg (80.9%) | 80 % | 4 |
| Grain | Strzegom Czekoladowy ciemny | 0.9 kg (19.1%) | 68 % | 1200 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|-----------|------------|
| Boil | Centennial | 10 g | 40 min | 10.5 % |
| Aroma (end of boil) | Equinox | 10 g | 0 min | 13.1 % |
| Aroma (end of boil) | Mosaic | 10 g | 0 min | 10 % |
| Dry Hop | Equinox | 10 g | 10 day(s) | 13.1 % |
| Dry Hop | Mosaic | 10 g | 10 day(s) | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale | Slant | 100 ml | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

| | | | | |
|--------|----------------|-------|-----------|-----------|
| Flavor | Laski cynamonu | 50 g | Secondary | 10 day(s) |
| Flavor | Kawa parzona | 330 g | Secondary | 10 day(s) |