

Red Lager

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **25**
- SRM **7**
- Style **Standard American Lager**

Batch size

- Expected quantity of finished beer **80 liter(s)**
- Trub loss **5 %**
- Size with trub loss **84 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **101.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **66.5 liter(s)**
- Total mash volume **85.5 liter(s)**

Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **5 C**, Time **76 min**

Mash step by step

- Heat up **66.5 liter(s)** of strike water to **2.9C**
- Add grains
- Keep mash **76 min** at **5C**
- Keep mash **30 min** at **63C**
- Keep mash **40 min** at **72C**
- Sparge using **53.7 liter(s)** of **76C** water or to achieve **101.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński | 14 kg (73.7%) | 80 % | 4 |
| Grain | wiking red aktive | 3 kg (15.8%) | 75 % | 40 |
| Grain | Karmelowy Czerwony | 1 kg (5.3%) | 75 % | 59 |
| Grain | Strzegom Monachijski typ I | 1 kg (5.3%) | 79 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Chinook | 70 g | 60 min | 12 % |
| Aroma (end of boil) | Crystal | 100 g | 5 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|-------|------|--------|------------|
| s 23 | Lager | Dry | 45 g | --- |