

4 RED

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **33**
- SRM **13.4**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **25.9 liter(s)**
- Total mash volume **33.3 liter(s)**

Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **25.9 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale | 4 kg (54.1%) | 79 % | 5 |
| Grain | Strzegom przenieczny | 1 kg (13.5%) | 82 % | 4 |
| Grain | strzegom red ale 70 EBC | 1.5 kg (20.3%) | 75 % | 70 |
| Grain | płatki jęczmienne | 0.4 kg (5.4%) | --- % | 4 |
| Grain | Strzegom Karmel 150 | 0.5 kg (6.8%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Magnum | 30 g | 60 min | 11.8 % |
| Boil | Lublin (Lubelski) | 10 g | 15 min | 6 % |
| Boil | Lublin (Lubelski) | 15 g | 0 min | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | --- |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-------------|--------|---------|--------|
| Fining | Whirlfloc T | 0.5 g | Boil | 10 min |