

#15 Karmel jasny

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **33**
- SRM **13**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **27.8 liter(s)**
- Trub loss **2 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **32.1 liter(s)**

Mash information

- Mash efficiency **68 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.8 liter(s)**
- Total mash volume **29 liter(s)**

Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **21.8 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **32.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Strzegom Pilzneński | 2 kg (27.6%) | 80 % | 4 |
| Grain | Strzegom Monachijski typ I | 1.5 kg (20.7%) | 79 % | 16 |
| Grain | Karmelowy 100 | 1 kg (13.8%) | 75 % | 100 |
| Grain | Viking Pale Ale malt | 1.5 kg (20.7%) | 80 % | 5 |
| Grain | Strzegom Czekoladowy ciemny | 0.05 kg (0.7%) | 68 % | 1200 |
| Grain | Strzegom Wiedeński | 1.2 kg (16.6%) | 79 % | 10 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Marynka | 35 g | 50 min | 10 % |
| Boil | Lublin (Lubelski) | 40 g | 10 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 250 ml | --- |