

# Toffee Stout Grażyna sprężyna

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **15**
- SRM **50.8**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **65 min**
- Evaporation rate **10 %/h**
- Boil size **31.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.7 liter(s)**
- Total mash volume **31.6 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **77 C**, Time **5 min**

## Mash step by step

- Heat up **23.7 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **31.9 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount        | Yield | EBC  |
|-------|-----------------------------|---------------|-------|------|
| Grain | Strzegom Pale Ale           | 3 kg (38%)    | 79 %  | 6    |
| Grain | Viking Pilsner malt         | 1 kg (12.7%)  | 82 %  | 4    |
| Grain | Strzegom Czekoladowy ciemny | 0.5 kg (6.3%) | 68 %  | 1200 |
| Grain | Strzegom Karmel 300         | 1.5 kg (19%)  | 70 %  | 299  |
| Grain | Płatki pszeniczne           | 0.7 kg (8.9%) | 60 %  | 3    |
| Grain | Płatki owsiane              | 0.7 kg (8.9%) | 85 %  | 3    |
| Grain | Jęczmień palony             | 0.5 kg (6.3%) | 55 %  | 985  |

## Hops

| Use for | Name  | Amount | Time      | Alpha acid |
|---------|-------|--------|-----------|------------|
| Boil    | Citra | 15 g   | 60 min    | 12 %       |
| Dry Hop | Citra | 30 g   | 10 day(s) | 12 %       |

## Yeasts

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

|                           |     |        |       |                  |
|---------------------------|-----|--------|-------|------------------|
| FM13 Irlandzkie Ciemności | Ale | Liquid | 30 ml | Fermentum Mobile |
|---------------------------|-----|--------|-------|------------------|

### Extras

| Type        | Name               | Amount | Use for   | Time     |
|-------------|--------------------|--------|-----------|----------|
| Water Agent | Laktoza            | 1600 g | Boil      | 10 min   |
| Other       | płatki dębowe rum  | 20 g   | Secondary | 7 day(s) |
| Water Agent | Kawa Lavazza crema | 80 g   | Secondary | 2 day(s) |

### Notes

- vanilia albo laski albo ekstrakt do ustalenia  
*Sep 18, 2021, 6:35 PM*