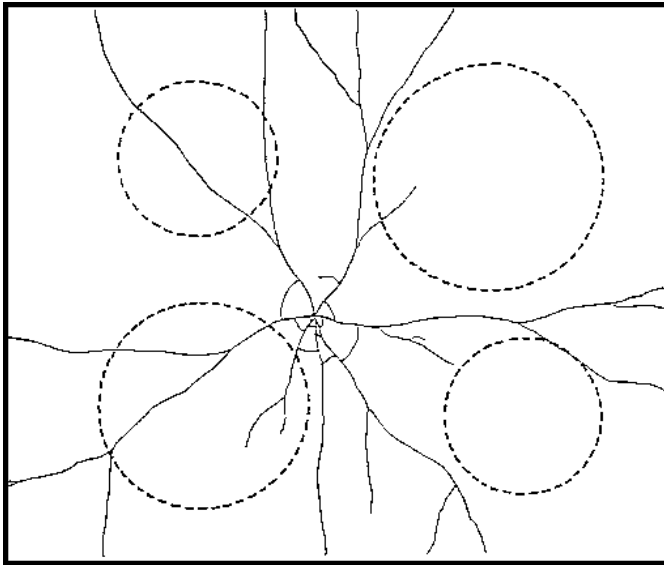


Breakage Analysis for CERAN®- Cooking Surfaces

Presentation of typical breakage structures

Type 1: Impact/collision pressure

A heavy and sharp edged tool or kitchen utensil has been dropped from considerable height onto the CERAN panel.



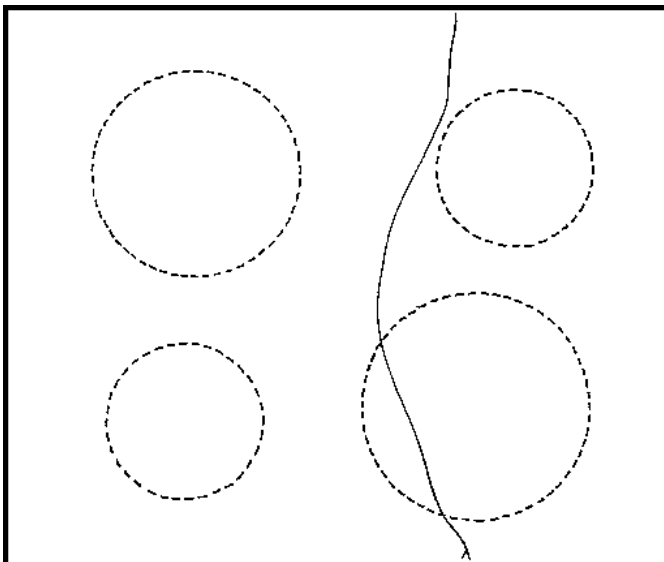
Breakage pattern:

Breakage starting at point of impact; in this case in the centre of the panel; several primary breakage lines extending towards the panel edges; the number of breakage lines depends greatly on the impact energy (i.e. intensity of impact). The long primary breakage lines may be linked by secondary short crossing breakage lines (like a spider's web).

Type 2: Bending

The cooking panel was permanently bent. Possible causes for bending:

- twisted frames
- heating elements pressing against the bottom side of the panel with too high forces

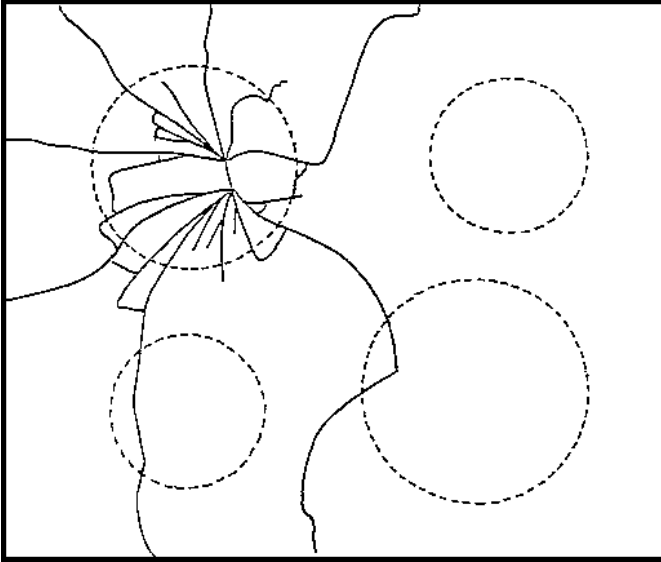


Breakage pattern:

A single fracture usually flows across the surface. Acute triangles are possible.

Type 3a: Fracture by overheating

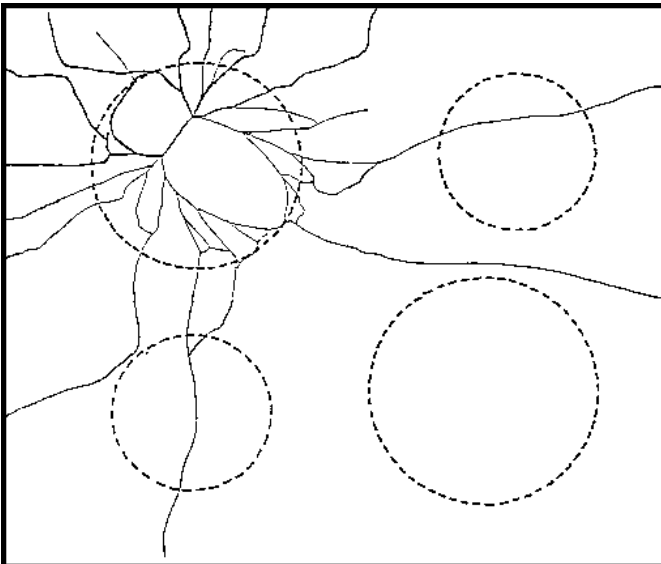
In the case below the surface was overheated due to a heating system that caused an excessive time / temperature stress. In the case of strong overheating, the surface shows within square centimeters cloudy or blue coloured signs. This is conspicuous especially by holding the surface in front of a light source.



Breakage pattern:

Breakage initiation within the cooking zone. The primary breakage line is normally 0.5 to 2 cm long, at both its ends usually dividing into several breakage lines. Usually a change of direction for the propagation of the breakage lines will be observed near the cooking zone edge.

Type 3b: Fracture by overheating



Breakage pattern:

Breakage initiation within the cooking zone. The primary breakage line is normally 0.5 to 2 cm long, at both its ends usually dividing into several breakage lines. Usually a change of direction for the propagation of the breakage lines will be observed near the cooking zone edge.