

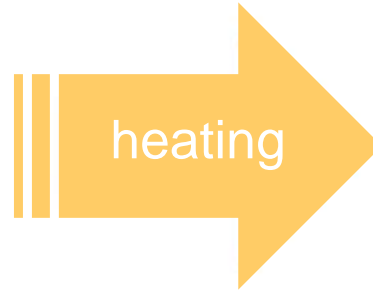
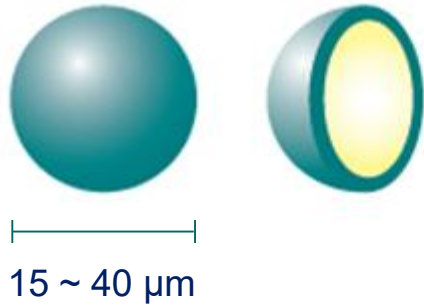


Heat expandable microcapsules

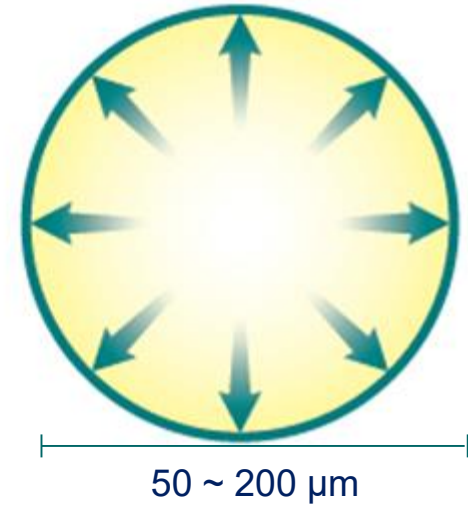
KUREHA Microsphere

What is Microsphere?

Particle size
before expansion

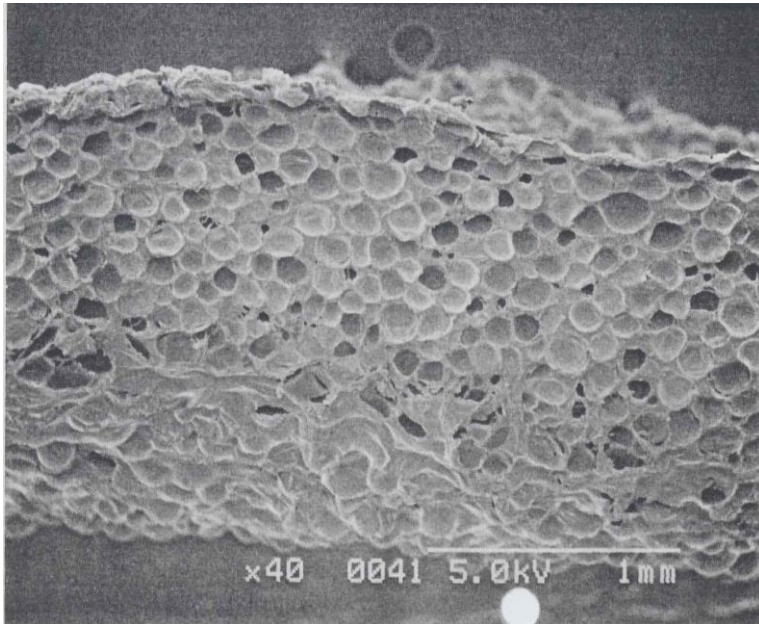


Particle size
after expansion



Characteristics of KUREHA Microsphere

- Density after expansion decreases from 1.1 g/cm³ to less than 0.02 g/cm³.
- Expansion can be accomplished in binder and fibrous materials
- Homogeneous independent cells, (because of core shell structure)
- Consistent and sharp particle size distribution

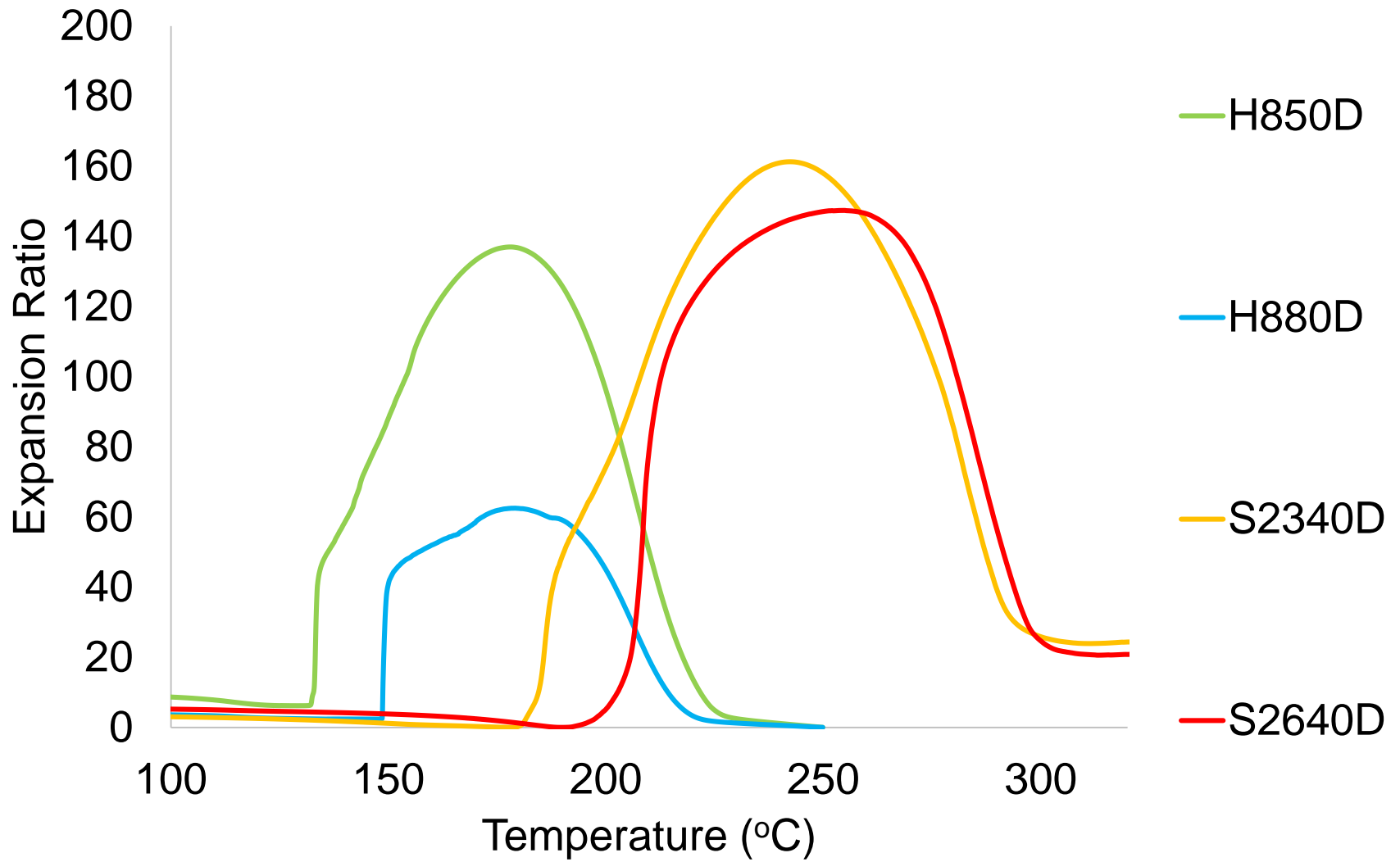


The picture of cross section of PVC sheet sample(add 3% of H850D) after expansion

KUREHA Microsphere grade lineup – Powder type-

Grade	Expansion Start Temperature (°C)	Temperature at Maximum Expansion (°C)	Particle Size before Expansion (µm)	Particle Size after Expansion (µm)	Expansion Ratio
H850D	133	178	35	182	137
H880D	149	179	30	117	63
S2340D	182	242	20	118	161
S2640D	199	255	20	101	147

Thermal Mechanical Analysis (TMA) Data



KUREHA Microsphere grade lineup – Masterbatch type (Pellets) -



- KUREHA microsphere masterbatch is pellets composed of expandable microsphere and base polymer.
- The dispersion of microsphere is improved by using the masterbatch in applications such as extrusion and injection.

Masterbatch Grade	Microsphere Grade	Base Polymer	Content (wt%)	Particle Size before Expansion (μm)	Expansion Start Temperature (°C)	Temperature at Maximum Expansion (°C)
MB-S3LC	S2340D	LDPE*	50	20	178	237
MB-S6LC	S2640D	LDPE*	50	20	206	249

* LDPE : Low Density Polyethylene





The Pursuit of Excellence

Notes to Users:

- All the values of each properties shown in this catalog are the typical values obtained under our test method.
- We can not guarantee that these data are directly applicable to the conditions of your applications and we ask you to make your own decision on your applications.