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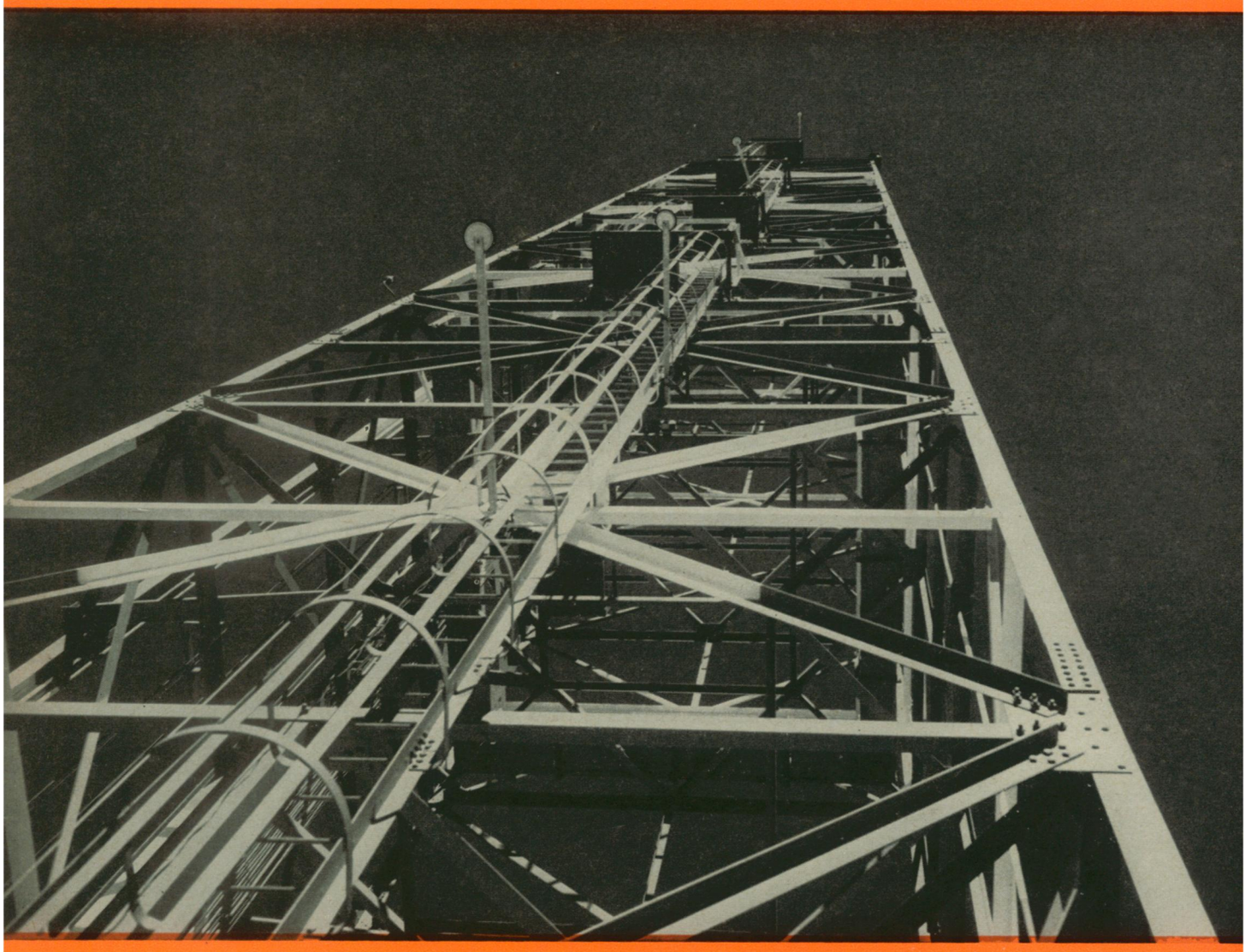
SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE



Weather Tower

See Page 358

A SCIENCE SERVICE PUBLICATION

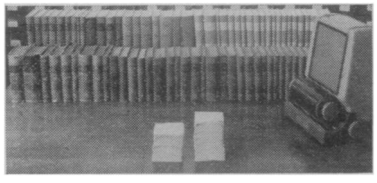
Kodak reports to laboratories on:

how goodly the body of microprint literature is . . . not jarring the radiographer's delicately tuned sensibilities . . . the plasticizerless plastic for the kitchen middens of tomorrow

A snowball rolling

Somewhere your librarian has to draw the line. Some books and bound volumes simply cost too much in money and space for the good a given organization is likely to get from them. These words are promotion for the microprint idea. It pushes the line which your librarian has to draw about as far as anyone could want it pushed.

A microprint card* is a piece of stiff paper, generally 3″ x 5″ or larger, on which can appear as many as 60 greatly reduced book pages.



These cards are read with the aid of optical devices. Of these we are prejudiced in favor of the *Kodagraph Microprint Reader* as the most comfortable to use.

A goodly body of the technical literature in the sciences, the humanities, and even the law and finance is now on sale in this form. To illustrate just how goodly is the body, we have just published a booklet entitled "What's Available on Microprint Cards." It is an attempt at a condensed consolidated catalog of the output of all microprint card publishers known to us and willing that we publicize their offerings. We alone are footing the bill for this project.

Our motives, of course, are selfish. Our scheme with the booklet is to convince a lot more scholars, librarians, and librarians' bosses that there is enough microprint literature around to justify the acquisition of microprint readers. Then, just as surely as the telephone, radio, and television industries grew, microprint grows. The publisher's market grows. The number of titles grows. The need for microprint readers where researchers foregather becomes more obvious. It even occurs to more large companies that since their research people already have readers for the open microprint literature, the companies' own internal reports might be more efficiently circulated in microprint form.

Since, as all this comes to pass, we shall sell more and more photographic materials with which to make microprint cards, there is no reason to hesitate about writing for a free copy of "What's Available on Microprint Cards" to Eastman Kodak Company, Graphic Reproduction Division, Rochester 4, N. Y.

*The term "Microcard" is applied only to certain makes of microprint cards.

A new x-ray film

Monotonous is the word. Looking at radiographs of castings and weldments, which are what go on most *Kodak Industrial X-ray Film*, can be monotonous unto distraction. Fortunately for public safety, radiographers are able to stand it and even to keep themselves alert for certain occasional small signs that signal danger. Rarely would the signs attract the attention of the uninitiated. Only after long familiarity with the radiographic appearance of sound metal does the sight of the unsound set off the alarm. It is easy to see why changes that would alter the appearance of radiographs are resisted.

Nevertheless, progress ought not be barred, so long as it does not jar the radiographer's delicately tuned sensibilities. Right now progress takes the form of displacing his favorite *Kodak Industrial X-ray Film, Type A*, with *Type AA*. His radiographs look the same, but the speed is up 30% for low-voltage x-rays, 70% for medium-voltage, 130% for high-voltage x-rays and gamma-rays such as the boys are now getting from Co^{60} and Cs^{137}. If he wants the same film density as before, he can now get it with less milliamperage or shorter exposure time. If he cares to adjust himself to looking at higher densities, he can give the same exposure as he used to and see more detail, since the contrast continues to increase as density increases. As a third alternative, he can consider that insofar as the greater mass of metal he can get through is concerned, we have in effect bumped up the capacity of his equipment for him.

There are many interesting facts about film and x-rays that Eastman Kodak Company, X-ray Division, Rochester 4, N. Y., can tell you, if you can only ask the right questions.

Beyond the squeeze bottle

Since we are stepping up the pace at Longview, Texas, to make 40,000,000 pounds annually of *Tenite Polyethylene*, it is desirable to look beyond squeeze bottles, sheet, pipe, wire covering, and housewares, much as our vast learning in dye chemistry is winning favor from a color-responsive populace who have known polyethylene only as the white, waxy one. No stone must be left unturned. From under one there might crawl out some triviality, colorful or otherwise, that within a twelvemonth *has* to go on every single ****** ******* in service. Likely as not, the gizmo's daddy turns out to be a guy better wooed with numbers than with warm, reassuring words. All right:

Average Properties of Tenite Polyethylene

Thermal coefficient of expansion	11×10^{-5} in/in/°F
Thermal conductivity	8×10^{-4} cal/cm²/sec/°C/cm
Specific heat	
solid (70-105F)	0.55
liquid (250-285F)	0.70
Brittleness temperature	<-70C
Tensile strength at fracture, 73F	2150 to 1100 psi (depending on formulation selected)
Dielectric strength (.030″ specimen at 60 cycles)	1000 v/mil (short time)
Volume resistivity	10^{19} ohms/cm
Surface resistivity	$> 4 \times 10^{14}$ ohms
Dielectric constant	2.3
Dissipation factor	<0.0005

For more such, write to Eastman Chemical Products, Inc., Kingsport, Tenn. (Subsidiary of Eastman Kodak Company), requesting the 16-page specification booklet on Tenite Polyethylene, *the plasticizerless plastic by which future antiquaries may date our kitchen middens. During the discussion of how the beads might get fabricated into the objects you need, we have every intention of making a friend out of you.*

This is one of a series of reports on the many products and services with which the Eastman Kodak Company and its divisions are . . . *serving laboratories everywhere*

Kodak
TRADEMARK